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=> file biosis caba caplus embase japio lifesci medline scisearch
=> e momotani eiichi/au
E1           2     MOMOTANI E I/AU
E2           4     MOMOTANI EI ICHI/AU
E3          97 --> MOMOTANI EIICHI/AU
E4           4     MOMOTANI EIJI/AU
E5           8     MOMOTANI EIKI/AU
E6           4     MOMOTANI GORO/AU
E7           1     MOMOTANI GOROU/AU
E8          38     MOMOTANI H/AU
E9           3     MOMOTANI HIDEKAZU/AU
E10          1     MOMOTANI HIDEKI/AU
E11         80     MOMOTANI HIROSHI/AU
E12          4     MOMOTANI HISAKO/AU

=> s e1-e5 and paratuberculosis
L1          21 ("MOMOTANI E I"/AU OR "MOMOTANI EI ICHI"/AU OR "MOMOTANI EIICHI"
               /AU OR "MOMOTANI EIJI"/AU OR "MOMOTANI EIKI"/AU) AND PARATUBERCU
               LOSIS

=> dup rem l1
PROCESSING COMPLETED FOR L1
L2           10 DUP REM L1 (11 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 10 ANSWERS - CONTINUE? Y/(N):y

L2   ANSWER 1 OF 10  CAPLUS  COPYRIGHT 2010 ACS on STN
AN   2008:665849  CAPLUS <<LOGINID::20100115>>
DN   148:579904
TI   Metal-made minute-quantity test tube for temperature sensitization
     experiment, and heat sterilization experiment method using it for
     microorganism in minute-quantity liquid sample
IN     ***Momotani, Eiichi***  ; Odon, Gerril
PA   National Agriculture Bio-Oriented Research Organization, Japan
SO   Jpn. Kokai Tokkyo Koho, 8pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   JP 2008125459        A     20080605    JP 2006-315410         20061122
PRAI JP 2006-315410             20061122
AB   A metal-made minute-quantity test tube for a temp. sensitization expt. is
     provided, which is useful for examg. a heat sterilization condition in a
     market milk prodn. process in order to avoid infection by Johne's
     disease-causing bacterium.  Also provided is a heat sterilization expt.
     method for microorganism in a minute-quantity liq. sample (e.g., milk),
     which is characterized in that the metal-made minute-quantity test tube
     for a temp. sensitization expt. is used.

L2   ANSWER 2 OF 10  CAPLUS  COPYRIGHT 2010 ACS on STN
AN   2007:428046  CAPLUS <<LOGINID::20100115>>
DN   146:416306
TI   Primer sets for detection of expression level of urocortin for evaluation
     of progressing of johne's disease in livestock
IN     ***Momotani, Eiichi***  ; Mori, Yasuyuki; Wang, Hong Yu
PA   National Agriculture Bio-Oriented Research Organization, Japan
SO   Jpn. Kokai Tokkyo Koho, 15pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     --------------      ----   --------    -------------------    --------
PI   JP 2007097490        A     20070419    JP 2005-291868         20051005
PRAI JP 2005-291868             20051005
AB   This invention provides primer sets for detection of expression level of
     urocortin in livestock blood sample by realtime-PCR.  The cDNA sequence of
     Bos taurus urocortin were disclosed.  The invention also provides method
     for prepn. of std. curve for real-time PCR by detecting the expression
     level of urocortin gene in Bos taurus cells immunized with antigen from
     Mycobacterium   ***paratuberculosis***  .  The method provided in this
     invention can be used for evaluation of progressing of johne's disease in
     livestock in early stage of infection.

L2   ANSWER 3 OF 10  BIOSIS  COPYRIGHT (c) 2010 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2007:589654  BIOSIS <<LOGINID::20100115>>
DN   PREV200700590889
TI   Corticotropin-releasing hormone and urocortin expression in peripheral
     blood cells from experimentally infected cattle with Mycobacterium avium
     subsp   ***paratuberculosis***  .
AU   Wang, Hongyu; Aodon-geril; Shu, Yujing; Momotani, Yuriko; Wang, Xiaofei;
     Mori, Yasuyuki;   ***Momotani, Eiichi***   [Reprint Author]
CS   Natl Inst Anim Hlth, Res Team Paratuberculosis, 3-1-5 Kan-nondai, Tsukuba,
     Ibaraki 3050856, Japan
     momotani@affrc.go.jp
SO   Microbes and Infection, (JUL 2007) Vol. 9, No. 9, pp. 1061-1069.
     ISSN: 1286-4579.
DT   Article
LA   English
ED   Entered STN: 21 Nov 2007
     Last Updated on STN: 21 Nov 2007
AB   Urocortin (UCN) is a new neuropeptide of the corticotrophin-releasing
     hormone (CRH) family which plays an important role in immune responses.
     Mycobacterium avium subspecies   ***paratuberculosis***   (Map) is the
     etiological agent of   ***paratuberculosis***   (Johne's disease).  The
     role of UCN or CRH in the pathogenesis of Map-infection is unknown.  In
     the present study, we first cloned the bovine UCN gene and demonstrated
     the profile of UCN or CRH expression in peripheral blood cells from
     Map-infected cattle and uninfected controls by real-time reverse
     transcription-polymerase chain reaction (RT-PCR) and ELISA analysis.
     These data are the first observations of the characteristic kinetics of
     these neuropeptides in Map-infection.  UCN or CRH expression in
     non-stimulated blood samples from infected cattle was higher than that in
     similarly treated samples from uninfected controls; however, exposure to
     Map lysate and live Map resulted in down-regulated expression of UCN in
     infected cattle compared to their counterparts from uninfected controls.
     These results have provided a direction in understanding the pathogenesis
     of   ***paratuberculosis***   and improving diagnostic methods for
     Map-infection. (C) 2007 Elsevier Masson SAS.  All rights reserved.
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L2 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2005:283672 CAPLUS <<LOGINID::20100115>>
DN 142:334896
TI Method for diagnosing johne's disease
IN ***Momotani, Eiichi*** ; Mori, Yasuyuki; Hikono, Hirokazu; Buza, Joram Josephat
PA Incorporated Administrative Agency National Agriculture and Bio-Oriented Research Organization, Japan
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005029079	A1	20050331	WO 2003-JP11845	20030917
W: AU, JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
AU 2003272880	A1	20050411	AU 2003-272880	20030917
AU 2003272880	B2	20090305		
JP 4359684	B2	20091104	JP 2005-509040	20030917
US 20080038758	A1	20080214	US 2007-572514	20070426
PRAI WO 2003-JP11845	A	20030917		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB A method for diagnosing johne's disease is provided, with which an animal infected with Mycobacterium ***paratuberculosis*** (Johne's) can be diagnosed at a high sensitivity in the inapparent infection stage before the specific antibody level begins to increase, and a large no. of specimens can be treated. The method is characterized in that it comprises collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium ***paratuberculosis*** antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood. The method is also characterized in that the IFN.gamma. yield in blood is measured by the IFN.gamma. ELISA method. Also provided is a method for diagnosing mycobacteriosis, which is characterized by comprising collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood.
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L2 ANSWER 5 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 2
AN 2004:438665 BIOSIS <<LOGINID::20100115>>
DN PREV200400437489
TI Neutralization of interleukin-10 significantly enhances gamma interferon expression in peripheral blood by stimulation with Johnin purified protein derivative and by infection with Mycobacterium avium subsp.
paratuberculosis in experimentally infected cattle with ***paratuberculosis*** .
AU Buza, Jorarn J.; Hikono, Hirokazu; Mori, Yasuyuki; Nagata, Reiko; Hirayama, Sachiyo; Bari, Abusaleh M.; Aodon-geril; Shu, Yujing; Tsuji, Noriko M.; ***Momotani, Eiichi*** [Reprint Author]
CS ParaTB and Inflammatory Bowel Dis Res Team, NIAH, 3-1-5 Kannondai, Tsukuba, Ibaraki, 3050856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (April 2004) Vol. 72, No. 4, pp. 2425-2428. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 17 Nov 2004
Last Updated on STN: 17 Nov 2004
AB Monoclonal antibody neutralization of interleukin-10 (IL-10) increased Johnin purified protein derivative-induced whole-blood gamma interferon (IFN-gamma) secretion 23-fold and also increased IFN-gamma secretion ninefold following in vitro Mycobacterium avium subsp.
paratuberculosis infection of peripheral blood mononuclear cells. These results demonstrate the suppressive effect of IL-10 on immune responses to M. avium subsp. ***paratuberculosis*** infection in cattle.

L2 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2004:885718 CAPLUS <<LOGINID::20100115>>
DN 141:363746
TI Development of early-stage diagnostic method for Johne disease by using anti-IL-10 antibody
AU ***Momotani, Eiichi*** ; Mori, Yasuyuki
CS Natl. Agric. Bio-oriented Res. Org., Natl. Inst. Animal Health, Tsukuba, 305-0856, Japan
SO BRAIN Techno News (2004), 105, 18-24
CODEN: BTEEEC; ISSN: 1345-5958
PB Nogyo, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Kiko, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Shien Senta
DT Journal; General Review
LA Japanese
AB A review on early-stage diagnosis of Johne's disease (***paratuberculosis***) in cattle by modified interferon .gamma. ELISA assay using IL-10 neutralizing antibody, and its effectiveness.

L2 ANSWER 7 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 3
AN 2004:64047 BIOSIS <<LOGINID::20100115>>
DN PREV200400065534
TI Mycobacterium avium subsp. ***paratuberculosis*** infection causes suppression of RANTES, monocyte chemoattractant protein 1, and tumor necrosis factor alpha expression in peripheral blood of experimentally infected cattle.
AU Buza, Joram J.; Mori, Yasuyuki; Bari, Abusaleh M.; Hikono, Hirokazu; Aodon-geril; Hirayama, Sachiyo; Shu, Yujing; ***Momotani, Eiichi*** [Reprint Author]
CS Paratuberculosis and Inflammatory Bowel Disease Research Team, NIAH, 3-1-5 Kan-nondai, Tsukuba, 305-0856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (December 2003) Vol. 71, No. 12, pp. 7223-7227. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 28 Jan 2004
Last Updated on STN: 28 Jan 2004
AB Blood from cattle with subclinical Mycobacterium avium subsp.

paratuberculosis infection was stimulated with M. avium subsp. ***paratuberculosis*** antigens, and expression of interleukin-1beta (IL-1beta), tumor necrosis factor alpha (TNF-alpha), RANTES, monocyte chemoattractant protein 1 (MCP-1), and IL-8 was measured. Expression of TNF-alpha, RANTES, and MCP-1 was lower in infected than in uninfected cattle. The reduced response may weaken protective immunity and perpetuate infection.

L2 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2003:399194 CAPLUS <<LOGINID::20100115>>
DN 140:39839
TI Studies on diagnostic methods for bovine ***paratuberculosis***
AU Mori, Yasuyuki; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; Hikono, Hirokazu; ***Momotani, Eiichi***
CS Immune System Section, Department of Immunology, National Institute of Animal Health, Tsukuba, 305-0856, Japan
SO Dobutsu Eisei Kenkyusho Kenkyu Hokoku (2003), Volume Date 2002, 109, 33-42
CODEN: DEKKC9; ISSN: 1347-2542
PB Nogyo Gijutsu Kenkyu Kiko Dobutsu Eisei Kenkyusho
DT Journal
LA Japanese
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serol. assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a no. of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found. (1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in fecal samples. (2) In the interferon gamma (IFN-.gamma.) assay using johnin purified protein deriv. (J-PPD), bovine tuberculin PPD and Con A (Con A), IFN-.gamma. responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-.gamma. assay by the higher IFN-.gamma. responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. (3) Monoclonal antibody (711-1-1) which recognizes the lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serol. tests. (4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepd. and successfully applied to induce IFN-.gamma. from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . (5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

L2 ANSWER 9 OF 10 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
AN 2003:329566 BIOSIS <<LOGINID::20100115>>
DN PREV200300329566
TI Studies on the diagnostic methods for bovine ***paratuberculosis*** .
AU Mori, Yasuyuki [Reprint Author]; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; Hikono, Hirokazu; ***Momotani, Eiichi***
CS Immune System Section, Department of Immunology, National Institute of Animal Health, 3-1-5 Kannondai, Tsukuba, Ibaraki, 305-0856, Japan
yamori@affrc.go.jp
SO Bulletin of the National Institute of Animal Health, (2002) No. 109, pp. 33-42. print.
ISSN: 1347-2542 (ISSN print).
DT Article
LA Japanese
ED Entered STN: 16 Jul 2003
Last Updated on STN: 16 Jul 2003
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serological assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a number of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found; 1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in faecal samples. 2) In the interferon gamma (IFN-gamma) assay using johnin purified protein derivative (J-PPD), bovine tuberculin PPD and concanavalin A (Con A), IFN-gamma responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-gamma assay by the higher IFN-gamma responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. 3) Monoclonal antibody (711-1-1) which recognizes the lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serological tests. 4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepared and successfully applied to induce IFN-gamma from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . 5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

L2 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2010 ACS on STN
AN 1986:222768 CAPLUS <<LOGINID::20100115>>
DN 104:222768
OREF 104:35297a,35300a
TI Immunohistochemical distribution of ferritin, lactoferrin, and transferrin granulomas of bovine ***paratuberculosis***
AU ***Momotani, Eiichi*** ; Furugouri, Ko; Obara, Yoshiaki; Miyata, Yasuhiko; Ishikawa, Yoshiharu; Yoshino, Tomoo
CS Hokkaido Branch Lab., Natl. Inst. Anim. Health, Sapporo, 004, Japan
SO Infection and Immunity (1986), 52(2), 623-7
CODEN: INFIBR; ISSN: 0019-9567
DT Journal
LA English
AB Granulomatous lesions of bovine ***paratuberculosis*** contained ferritin, lactoferrin, and a small amt. of transferrin. Macrophages in the normal bovine ileum did not contain lactoferrin and transferrin; however, ferritin was found in individual macrophages of Peyer's patches. These results may help elucidate the relationship between intracellular growth of M. ***paratuberculosis*** and the presence of Fe-binding proteins in the granulomas.
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

=> e mori yasuyuki/au
E1 108 MORI YASUYOSHI/AU

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E2          1     MORI YASUYOSMI/AU
E3        305 --> MORI YASUYUKI/AU
E4          1     MORI YASUZANE/AU
E5         18     MORI YAYOI/AU
E6        247     MORI YO/AU
E7          1     MORI YO ICHI/AU
E8          1     MORI YOHIRO/AU
E9          4     MORI YOHKO/AU
E10         6     MORI YOHTA/AU
E11       741     MORI YOICHI/AU
E12       147     MORI YOICHIRO/AU

=> s e3 and paratuberculosis
L3         45 "MORI YASUYUKI"/AU AND PARATUBERCULOSIS

=> dup rem l3
PROCESSING COMPLETED FOR L3
L4          17 DUP REM L3 (28 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 17 ANSWERS - CONTINUE? Y/(N):y

L4   ANSWER 1 OF 17  CAPLUS  COPYRIGHT 2010 ACS on STN
AN   2007:428046  CAPLUS <<LOGINID::20100115>>
DN   146:416306
TI   Primer sets for detection of expression level of urocortin for evaluation
     of progressing of johne's disease in livestock
IN   Momotani, Eiichi;  ***Mori, Yasuyuki***  ; Wang, Hong Yu
PA   National Agriculture Bio-Oriented Research Organization, Japan
SO   Jpn. Kokai Tokkyo Koho, 15pp.
     CODEN: JKXXAF
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE        APPLICATION NO.        DATE
     ---------------     ----   --------    --------------------   --------
PI   JP 2007097490        A     20070419    JP 2005-291868         20051005
PRAI JP 2005-291868             20051005
AB   This invention provides primer sets for detection of expression level of
     urocortin in livestock blood sample by realtime-PCR.  The cDNA sequence of
     Bos taurus urocortin were disclosed.  The invention also provides method
     for prepn. of std. curve for real-time PCR by detecting the expression
     level of urocortin gene in Bos taurus cells immunized with antigen from
     Mycobacterium  ***paratuberculosis***  .  The method provided in this
     invention can be used for evaluation of progressing of johne's disease in
     livestock in early stage of infection.

L4   ANSWER 2 OF 17  BIOSIS  COPYRIGHT (c) 2010 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2007:589654  BIOSIS <<LOGINID::20100115>>
DN   PREV200700590889
TI   Corticotropin-releasing hormone and urocortin expression in peripheral
     blood cells from experimentally infected cattle with Mycobacterium avium
     subsp  ***paratuberculosis***  .
AU   Wang, Hongyu; Aodon-geril; Shu, Yujing; Momotani, Yuriko; Wang, Xiaofei;
       ***Mori, Yasuyuki***  ; Momotani, Eiichi [Reprint Author]
CS   Natl Inst Anim Hlth, Res Team Paratuberculosis, 3-1-5 Kan-nondai, Tsukuba,
     Ibaraki 3050856, Japan
     momotani@affrc.go.jp
SO   Microbes and Infection, (JUL 2007) Vol. 9, No. 9, pp. 1061-1069.
     ISSN: 1286-4579.
DT   Article
LA   English
ED   Entered STN: 21 Nov 2007
     Last Updated on STN: 21 Nov 2007
AB   Urocortin (UCN) is a new neuropeptide of the corticotrophin-releasing
     hormone (CRH) family which plays an important role in immune responses.
     Mycobacterium avium subspecies  ***paratuberculosis***  (Map) is the
     etiological agent of  ***paratuberculosis***  (Johne's disease).  The
     role of UCN or CRH in the pathogenesis of Map-infection is unknown.  In
     the present study, we first cloned the bovine UCN gene and demonstrated
     the profile of UCN or CRH expression in peripheral blood cells from
     Map-infected cattle and uninfected controls by real-time reverse
     transcription-polymerase chain reaction (RT-PCR) and ELISA analysis.
     These data are the first observations of the characteristic kinetics of
     these neuropeptides in Map-infection.  UCN or CRH expression in
     non-stimulated blood samples from infected cattle was higher than that in
     similarly treated samples from uninfected controls; however, exposure to
     Map lysate and live Map resulted in down-regulated expression of UCN in
     infected cattle compared to their counterparts from uninfected controls.
     These results have provided a direction in understanding the pathogenesis
     of  ***paratuberculosis***  and improving diagnostic methods for
     Map-infection. (C) 2007 Elsevier Masson SAS.  All rights reserved.

L4   ANSWER 3 OF 17  BIOSIS  COPYRIGHT (c) 2010 The Thomson Corporation  on STN
     DUPLICATE 2
AN   2008:30137  BIOSIS <<LOGINID::20100115>>
DN   PREV200800031655
TI   Detection of Mycobacterium avium subsp  ***paratuberculosis***  in ovine
     faeces by direct quantitative PCR has similar or greater sensitivity
     compared to radiometric culture.
AU   Kawaji, Satoko; Taylor, Deborah L.;  ***Mori, Yasuyuki***  ; Whittington,
     Richard J. [Reprint Author]
CS   Univ Sydney, Fac Vet Sci, 425 Werombi Rd, Camden, NSW 2570, Australia
     richardw@camden.usyd.edu.au
SO   Veterinary Microbiology, (NOV 15 2007) Vol. 125, No. 1-2, pp. 36-48.
     CODEN: VMICDQ. ISSN: 0378-1135.
DT   Article
LA   English
ED   Entered STN: 19 Dec 2007
     Last Updated on STN: 19 Dec 2007
AB   The aims of this study were to develop a new real-time quantitative PCR
     (QPCR) assay based on IS900 for detection and quantification of
     Mycobacterium avium subsp.  ***paratuberculosis***  (MAP) DNA in faeces,
     and to use this to detect infected sheep.  Both the C and S strains of MAP
     were detected by the QPCR assay, and no cross reactions were detected with
     51 other species of mycobacteria including 10 which contained IS900-like
     sequences.  One copy of IS900 fragment cloned into plasmid pCR2.1 and 1 fg
     of MAP genomic DNA were consistently detected, while in spiked faecal
     samples the detection limit was 10 viable MAP per gram of ovine faeces.  A
     total of 506 individual ovine faecal samples and 27 pooled ovine faecal
     samples with known culture results were tested.  The QPCR assay detected
     68 of 69 BACTEC culture positive individual faeces and there was a strong
     relation between time to detection in culture and DNA quantity measured by
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QPCR (r = -0.70). In pooled faecal samples, QPCR also agreed with culture (kappa = 0.59). MAP DNA was detected from some culture negative faecal samples from sheep exposed to MAP, suggesting that the QPCR has very high analytical sensitivity for MAP in faecal samples and detects non-viable MAP in ovine faeces. None of the faecal samples from 176 sheep that were not exposed to MAP were positive in QPCR. This is the first report of a direct faecal QPCR assay that has similar sensitivity to a gold standard radiometric culture assay. (C) 2007 Elsevier B.V. All rights reserved.

L4 ANSWER 4 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 3
AN 2006:532033 BIOSIS <<LOGINID::20100115>>
DN PREV200600524060
TI A highly sensitive and subspecies-specific surface antigen enzyme-linked immunosorbent assay for diagnosis of Johne's disease.
AU Eda, Shigetoshi; Bannantine, John P.; Waters, W. R.; ***Mori,*** *** Yasuyuki*** ; Whitlock, Robert H.; Scott, M. Cathy; Speer, C. A. [Reprint Author]
CS Univ Tennessee, Ctr Wildlife Hlth, Dept Forestry Wildlife and Fisheries, POB 1071, Knoxville, TN 37901 USA
caspeer@utk.edu
SO Clinical and Vaccine Immunology, (AUG 2006) Vol. 13, No. 8, pp. 837-844. ISSN: 1556-6811.
DT Article
LA English
ED Entered STN: 12 Oct 2006
Last Updated on STN: 12 Oct 2006
AB Johne's disease (JD), or ***paratuberculosis*** , caused by Mycobacterium avium subsp. ***paratuberculosis*** , is one of the most widespread and economically important diseases of livestock and wild ruminants worldwide. Control of JD could be accomplished by diagnosis and good animal husbandry, but this is currently not feasible because commercially available diagnostic tests have low sensitivity levels and are incapable of diagnosing prepatent infections. In this study, a highly sensitive and subspecies-specific enzyme-linked immunosorbent assay was developed for the diagnosis of JD by using antigens extracted from the surface of M. avium subsp. ***paratuberculosis*** . Nine different chemicals and various intervals of agitation by vortex were evaluated for their ability to extract the surface antigens. Various quantities of surface antigens per well in a 96-well microtiter plate were also tested. The greatest differences in distinguishing between JD-positive and JD-negative serum samples by ethanol vortex enzyme-linked immunosorbent assay (EVELISA) were obtained with surface antigens dislodged from 50 mu g/well of bacilli treated with 80% ethanol followed by a 30-second interval of agitation by vortex. The diagnostic specificity and sensitivity of the EVELISA were 97.4% and 100%, respectively. EVELISA plates that had been vacuum-sealed and then tested 7 weeks later (the longest interval tested) had diagnostic specificity and sensitivity rates of 96.9 and 100%, respectively. In a comparative study involving serum samples from 64 fecal culture-positive cattle, the EVELISA identified 96.6% of the low-level fecal shedders and 100% of the midlevel and high-level shedders, whereas the Biocor ELISA detected 13.7% of the low-level shedders, 25% of the mid-level shedders, and 96.2% of the high-level shedders. Thus, the EVELISA was substantially superior to the Biocor ELISA, especially in detecting low-level and midlevel shedders. The EVELISA may form the basis for a highly sensitive and subspecies-specific test for the diagnosis of JD.

L4 ANSWER 5 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 4
AN 2006:467815 BIOSIS <<LOGINID::20100115>>
DN PREV200600465331
TI A novel enzyme-linked immunosorbent assay for diagnosis of Mycobacterium avium subsp ***paratuberculosis*** infections (Johne's disease) in cattle.
AU Speer, C. A. [Reprint Author]; Scott, M. Cathy; Bannantine, John P.; Waters, W. Ray; ***Mori, Yasuyuki*** ; Whitlock, Robert H.; Eda, Shigetoshi
CS Univ Tennessee, Dept Forestry Wildlife and Fisheries, Ctr Wildlife Hlth, POB 1071, Knoxville, TN 37901 USA
caspeer@utk.edu
SO Clinical and Vaccine Immunology, (MAY 2006) Vol. 13, No. 5, pp. 535-540. ISSN: 1556-6811.
DT Article
LA English
ED Entered STN: 20 Sep 2006
Last Updated on STN: 20 Sep 2006
AB Enzyme-linked immunosorbent assays (ELISAs) for the diagnosis of Johne's disease (JD), caused by Mycobacterium avium subsp. ***paratuberculosis*** , were developed using whole bacilli treated with formaldehyde (called WELISA) or surface antigens obtained by treatment of H. avium subsp. ***paratuberculosis*** bacilli with formaldehyde and then brief sonication (called SELISA). ELISA plates were coated with either whole bacilli or sonicated antigens and tested for reactivity against serum obtained from JD-positive and JD-negative cattle or from calves experimentally inoculated with M. avium subsp. ***paratuberculosis*** , Mycobacterium avium subsp. avium, or Mycobacterium bovis. Because the initial results obtained from the WELISA and SELISA were similar, most of the subsequent experiments reported herein were performed using the SELISA method. To optimize the SELISA test, various concentrations (3.7 to 37%) of formaldehyde and intervals of sonication (2 to 300 s) were tested. With an increase in formaldehyde concentration and a decreased interval of sonication, there was a concomitant decrease in nonspecific binding by the SELISA. SELISAs prepared by treating M. avium subsp. ***paratuberculosis*** with 37% formaldehyde and then a 2-s burst of sonication produced the greatest difference (7X) between M. avium subsp. ***paratuberculosis*** -negative and M. avium subsp. ***paratuberculosis*** -positive serum samples. The diagnostic sensitivity and specificity for JD by the SELISA were greater than 95%. The SELISA showed subspecies-specific detection of M. avium subsp. ***paratuberculosis*** infections in calves experimentally inoculated with M. avium subsp. ***paratuberculosis*** or other mycobacteria. Based on diagnostic sensitivity and specificity, the SELISA appears superior to the commercial ELISAs routinely used for the diagnosis of JD.

L4 ANSWER 6 OF 17 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2005:283672 CAPLUS <<LOGINID::20100115>>
DN 142:334896
TI Method for diagnosing johne's disease
IN Momotani, Eiichi; ***Mori, Yasuyuki*** ; Hikono, Hirokazu; Buza, Joram Josephat
PA Incorporated Administrative Agency National Agriculture and Bio-Oriented

Research Organization, Japan
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005029079	A1	20050331	WO 2003-JP11845	20030917
W: AU, JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
AU 2003272880	A1	20050411	AU 2003-272880	20030917
AU 2003272880	B2	20090305		
JP 4359684	B2	20091104	JP 2005-509040	20030917
US 20080038758	A1	20080214	US 2007-572514	20070426
PRAI WO 2003-JP11845	A	20030917		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT

AB A method for diagnosing johne's disease is provided, with which an animal infected with Mycobacterium ***paratuberculosis*** (Johne's) can be diagnosed at a high sensitivity in the inapparent infection stage before the specific antibody level begins to increase, and a large no. of specimens can be treated. The method is characterized in that it comprises collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium ***paratuberculosis*** antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood. The method is also characterized in that the IFN.gamma. yield in blood is measured by the IFN.gamma. ELISA method. Also provided is a method for diagnosing mycobacteriosis, which is characterized by comprising collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 17 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2005:315731 CAPLUS <<LOGINID::20100115>>
DN 142:390942
TI Protein and DNA sequence of Mycobacterium johnei antigens able to induce interferon and uses in diagnosis
IN ***Mori, Yasuyuki*** ; Nagata, Reiko; Yoshihara, Kazuhiro; Sota, Yoshihiro; Yokomizo, Yuichi
PA National Institute of Agro-Environmental Sciences, Japan
SO Jpn. Kokai Tokkyo Koho, 12 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2005095101	A	20050414	JP 2003-334977	20030926
JP 3864230	B2	20061227		
PRAI JP 2003-334977		20030926		

AB The sequences of antigens able to induce interferon .gamma. are isolated from cow PBMC (peripheral blood mononuclear cell) infected with Mycobacterium johnei. The induction of interferon .gamma. by Mycobacterium johnei is useful in diagnosis of infection of Mycobacterium johnei by detection of interferon .gamma. in the supernatant of infected cells.

L4 ANSWER 8 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
DUPLICATE 5
AN 2005:337763 BIOSIS <<LOGINID::20100115>>
DN PREV200510123867
TI Expression cloning of gamma interferon-inducing antigens of Mycobacterium avium subsp ***paratuberculosis*** .
AU Nagata, Reiko [Reprint Author]; Muneta, Yoshihiro; Yoshihara, Kazuhiro; Yokomizo, Yuichi; ***Mori, Yasuyuki***
CS Natl Inst Anim Hlth, Immune Syst Sect, Dept Immunol, 3-1-5 Kannondai, Tsukuba, Ibaraki 3050856, Japan
kikuma@affrc.go.jp
SO Infection and Immunity, (JUN 2005) Vol. 73, No. 6, pp. 3778-3782.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
OS GenBank-AX094821; EMBL-AX094821; DDJB-AX094821; GenBank-U18263; EMBL-U18263; DDJB-U18263
ED Entered STN: 31 Aug 2005
Last Updated on STN: 31 Aug 2005
AB Three recombinant proteins, Map10, Map39, and Map41, produced based on nucleotide sequences obtained from the screening of Mycobacterium avium subsp. ***paratuberculosis*** genomic library expressed in Escherichia coli significantly elicited gamma interferon production in peripheral blood mononuclear cells from infected cattle. Two of these proteins were members of the PPE protein family.

L4 ANSWER 9 OF 17 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2004:175700 CAPLUS <<LOGINID::20100115>>
DN 140:230513
TI Primer sets for detection of Mycobacterium avium and their uses for diagnosis of Johne's disease
IN Kageyama, Soichi; Sawai, Takeshi; Hinosawa, Masaki; Onoe, Sadao; Watanabe, Keiko; ***Mori, Yasuyuki*** ; Yoshihara, Kazuhiro; Muneta, Yoshihiro; Yokomizo, Yuichi
PA Hokkaido Prefecture, Japan; Eiken Chemical Co., Ltd.; Nogyo Gijutsu Kenkyu Kiko
SO Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI JP 2004065244	A	20040304	JP 2003-159573	20030604
PRAI JP 2002-168696	A	20020610		

AB This invention provides primer sets for detection of Mycobacterium avium ***Paratuberculosis*** . The primers were used for amplification of Mycobacterium insertion sequence IS900. The method of detection of Mycobacterium can be used for diagnosis of Johne's disease.

OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)

L4 ANSWER 10 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on

STN DUPLICATE 6

AN 2004:438665 BIOSIS <<LOGINID::20100115>>
DN PREV200400437489
TI Neutralization of interleukin-10 significantly enhances gamma interferon expression in peripheral blood by stimulation with Johnin purified protein derivative and by infection with Mycobacterium avium subsp. ***paratuberculosis*** in experimentally infected cattle with ***paratuberculosis*** .
AU Buza, Jorarn J.; Hikono, Hirokazu; ***Mori, Yasuyuki*** ; Nagata, Reiko; Hirayama, Sachiyo; Bari, Abusaleh M.; Aodon-geril; Shu, Yujing; Tsuji, Noriko M.; Momotani, Eiichi [Reprint Author]
CS ParaTB and Inflammatory Bowel Dis Res Team, NIAH, 3-1-5 Kannondai, Tsukuba, Ibaraki, 3050856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (April 2004) Vol. 72, No. 4, pp. 2425-2428. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 17 Nov 2004
Last Updated on STN: 17 Nov 2004
AB Monoclonal antibody neutralization of interleukin-10 (IL-10) increased Johnin purified protein derivative-induced whole-blood gamma interferon (IFN-gamma) secretion 23-fold and also increased IFN-gamma secretion ninefold following in vitro Mycobacterium avium subsp. ***paratuberculosis*** infection of peripheral blood mononuclear cells. These results demonstrate the suppressive effect of IL-10 on immune responses to M. avium subsp. ***paratuberculosis*** infection in cattle.

L4 ANSWER 11 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
AN 2005:45686 BIOSIS <<LOGINID::20100115>>
DN PREV200500044914
TI Generation of multinucleated giant cells in vitro from bovine monocytes and macrophages.
AU Yoshihara, Kazuhiro [Reprint Author]; Nagata, Reiko; Muneta, Yoshihiro; Inumaru, Shigeki; Yokomizo, Yuichi; ***Mori, Yasuyuki***
CS Natl Inst Anim Hlth, 3-1-5 Kannondai, Tsukuba, Ibaraki, 3050856, Japan
SO Journal of Veterinary Medical Science, (September 2004) Vol. 66, No. 9, pp. 1065-1069. print.
ISSN: 0916-7250 (ISSN print).
DT Article
LA English
ED Entered STN: 26 Jan 2005
Last Updated on STN: 26 Jan 2005
AB The generation of multinucleated giant cells (MGC) from cells of the bovine monocyte-macrophage lineage was investigated. Freshly isolated monocytes were incubated with the conditioned medium (CM) of peripheral blood mononuclear cell cultures treated with Concanavalin A for 1-4 days (CM1 to CM4). Only CM1 generated MGC despite similar concentrations of IFNgamma in all CMs. Nevertheless, MGC formation from monocytes was enhanced by adding either macrophage colony-stimulating factor (M-CSF) or granulocyte-macrophage colony-stimulating factor (GM-CSF), MGC formations from macrophages were observed only when macrophages were cultured with GM-CSF plus CM. These results indicate that several mechanisms to generate MGC from bovine monocytes-macrophage lineage cells exist, and that GM-CSF is a major mediator of MGC formation in cattle.

L4 ANSWER 12 OF 17 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2004:885718 CAPLUS <<LOGINID::20100115>>
DN 141:363746
TI Development of early-stage diagnostic method for Johne disease by using anti-IL-10 antibody
AU Momotani, Eiichi; ***Mori, Yasuyuki***
CS Natl. Agric. Bio-oriented Res. Org., Natl. Inst. Animal Health, Tsukuba, 305-0856, Japan
SO BRAIN Techno News (2004), 105, 18-24
CODEN: BTEEEC; ISSN: 1345-5958
PB Nogyo, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Kiko, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Shien Senta
DT Journal; General Review
LA Japanese
AB A review on early-stage diagnosis of Johne's disease (***paratuberculosis***) in cattle by modified interferon .gamma. ELISA assay using IL-10 neutralizing antibody, and its effectiveness.

L4 ANSWER 13 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 7
AN 2004:64047 BIOSIS <<LOGINID::20100115>>
DN PREV200400065534
TI Mycobacterium avium subsp. ***paratuberculosis*** infection causes suppression of RANTES, monocyte chemoattractant protein 1, and tumor necrosis factor alpha expression in peripheral blood of experimentally infected cattle.
AU Buza, Joram J.; ***Mori, Yasuyuki*** ; Bari, Abusaleh M.; Hikono, Hirokazu; Aodon-geril; Hirayama, Sachiyo; Shu, Yujing; Momotani, Eiichi [Reprint Author]
CS Paratuberculosis and Inflammatory Bowel Disease Research Team, NIAH, 3-1-5 Kan-nondai, Tsukuba, 305-0856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (December 2003) Vol. 71, No. 12, pp. 7223-7227. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 28 Jan 2004
Last Updated on STN: 28 Jan 2004
AB Blood from cattle with subclinical Mycobacterium avium subsp. ***paratuberculosis*** infection was stimulated with M. avium subsp. ***paratuberculosis*** antigens, and expression of interleukin-1beta (IL-1beta), tumor necrosis factor alpha (TNF-alpha), RANTES, monocyte chemoattractant protein 1 (MCP-1), and IL-8 was measured. Expression of TNF-alpha, RANTES, and MCP-1 was lower in infected than in uninfected cattle. The reduced response may weaken protective immunity and perpetuate infection.

L4 ANSWER 14 OF 17 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2003:399194 CAPLUS <<LOGINID::20100115>>
DN 140:39839
TI Studies on diagnostic methods for bovine ***paratuberculosis***
AU ***Mori, Yasuyuki*** ; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; Hikono, Hirokazu; Momotani, Eiichi
CS Immune System Section, Department of Immunology, National Institute of Animal Health, Tsukuba, 305-0856, Japan

SO Dobutsu Eisei Kenkyusho Kenkyu Hokoku (2003), Volume Date 2002, 109, 33-42
CODEN: DEKKC9; ISSN: 1347-2542
PB Nogyo Gijutsu Kenkyu Kiko Dobutsu Eisei Kenkyusho
DT Journal
LA Japanese
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serol. assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a no. of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found. (1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in fecal samples. (2) In the interferon gamma (IFN-.gamma.) assay using johnin purified protein deriv. (J-PPD), bovine tuberculin PPD and Con A (Con A), IFN-.gamma. responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-.gamma. assay by the higher IFN-.gamma. responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. (3) Monoclonal antibody (711-1-1) which recognizes the lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serol. tests. (4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepd. and successfully applied to induce IFN-.gamma. from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . (5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

L4 ANSWER 15 OF 17 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
AN 2003:329566 BIOSIS <<LOGINID::20100115>>
DN PREV200300329566
TI Studies on the diagnostic methods for bovine ***paratuberculosis*** .
AU ***Mori, Yasuyuki*** [Reprint Author]; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; Hikono, Hirokazu; Momotani, Eiichi
CS Immune System Section, Department of Immunology, National Institute of Animal Health, 3-1-5 Kannondai, Tsukuba, Ibaraki, 305-0856, Japan
yamori@affrc.go.jp
SO Bulletin of the National Institute of Animal Health, (2002) No. 109, pp. 33-42. print.
ISSN: 1347-2542 (ISSN print).
DT Article
LA Japanese
ED Entered STN: 16 Jul 2003
Last Updated on STN: 16 Jul 2003
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serological assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a number of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found; 1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in faecal samples. 2) In the interferon gamma (IFN-gamma) assay using johnin purified protein derivative (J-PPD), bovine tuberculin PPD and concanavalin A (Con A), IFN-gamma responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-gamma assay by the higher IFN-gamma responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. 3) Monoclonal antibody (711-1-1) which recognizes the lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serological tests. 4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepared and successfully applied to induce IFN-gamma from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . 5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

L4 ANSWER 16 OF 17 JAPIO (C) 2010 JPO on STN
AN 2005-095101 JAPIO <<LOGINID::20100115>>
TI ANTIGEN PROTEIN OF MYCOBACTERIUM AVIUM SUBSP. ***PARATUBERCULOSIS*** , GENE ENCODING THE SAME PROTEIN AND METHOD FOR DIAGNOSING MYCOBACTERIUM AVIUM SUBSP. ***PARATUBERCULOSIS*** BY USING THE SAME PROTEIN
IN ***MORI YASUYUKI*** ; NAGATA REIKO; YOSHIHARA KAZUHIRO; MUNEDA YOSHIHIRO; YOKOMIZO YUICHI
PA NATIONAL AGRICULTURE & BIO-ORIENTED RESEARCH ORGANIZATION
PI JP 2005095101 A 20050414 Heisei
AI JP 2003-334977 (JP2003334977 Heisei) 20030926
PRAI JP 2003-334977 20030926
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2005
AB PROBLEM TO BE SOLVED: To provide an antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** having IFN-γ-inducing ability and further clarify genetic information concerning the antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** and readily enable mass production of the antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** and to provide a method for accurately diagnosing
Mycobacterium avium subsp. ***paratuberculosis*** in high sensitivity by using the antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** having the IFN-γ-inducing ability. SOLUTION: The present invention relates an antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** composed of a specific amino acid sequence, a gene encoding the antigen protein of Mycobacterium avium subsp. ***paratuberculosis*** composed of a specific amino acid sequence, a cell in which the gene is induced so as to enable expression and a method for diagnosing Johne's disease comprising adding the protein or the cell to the cell of an animal to be examined, culturing the cell and detecting an interferon γ concentration in a culture supernatant.

L4 ANSWER 17 OF 17 JAPIO (C) 2010 JPO on STN
AN 2004-065244 JAPIO <<LOGINID::20100115>>
TI PRIMER FOR DETECTING MYCOBACTERIUM AVIUM SUBSPECIES ***PARATUBERCULOSIS*** AND METHOD FOR DIAGNOSING JOHNE'S DISEASE BY USING THE PRIMER
IN KAGEYAMA SOICHI; SAWAI TAKESHI; ENOSAWA MAKI; ONOE SADAO; WATANABE KEIKO; ***MORI YASUYUKI*** ; YOSHIHARA KAZUHIRO; MUNEDA YOSHIHIRO; YOKOMIZO

YUICHI
PA HOKKAIDO
EIKEN CHEM CO LTD
NATIONAL AGRICULTURE & BIO-ORIENTED RESEARCH ORGANIZATION
PI JP 2004065244 A 20040304 Heisei
AI JP 2003-159573 (JP2003159573 Heisei) 20030604
PRAI JP 2002-168696 20020610
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 2004
AB PROBLEM TO BE SOLVED: To provide a primer capable of efficiently amplifying a specific base sequence on an insertion sequence IS900 (sequence No.1) of Mycobacterium avium subs. ***Paratuberculosis*** , and to provide a simple method for genetically diagnosing Johne's disease by using the primer.
SOLUTION: This new primer amplifies the base sequence of a target region selected from the insertion sequence IS900 (sequence No.1) of the Mycobacterium avium subs. ***Paratuberculosis*** or its complementary chain, wherein the primer contains (1) a base sequence which functions as a primer by annealing the specific base sequence on the insertion sequence IS900 of the Mycobacterium avium subs. ***Paratuberculosis*** as a first region and (2) another base sequence which comprises a sequence complementary to a base sequence of the 3' side of the first region and positions on the 5' side of the first region as a second region. Further, a method for amplifying the specific base sequence on the insertion sequence IS900 of the Mycobacterium avium subs. ***Paratuberculosis*** is conducted by utilizing a LAMP method in which the primer is used.
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=> e hikono hirokazu/au
E1 11 HIKONO ATSUSHI/AU
E2 46 HIKONO H/AU
E3 66 --> HIKONO HIROKAZU/AU
E4 1 HIKONO HIROKAZU DR/AU
E5 3 HIKONO KOICHI/AU
E6 1 HIKONO KOUICHI/AU
E7 1 HIKONO M/AU
E8 1 HIKONO MASAHARU/AU
E9 3 HIKONO MASAJI/AU
E10 1 HIKONO SEIJI/AU
E11 4 HIKONO T/AU
E12 1 HIKONO TADASHI/AU

=> s e3-e4 and paratuberculosis
L5 11 ("HIKONO HIROKAZU"/AU OR "HIKONO HIROKAZU DR"/AU) AND PARATUBERCULOSIS

=> dup rem l5
PROCESSING COMPLETED FOR L5
L6 5 DUP REM L5 (6 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L6 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2005:283672 CAPLUS <<LOGINID::20100115>>
DN 142:334896
TI Method for diagnosing johne's disease
IN Momotani, Eiichi; Mori, Yasuyuki; ***Hikono, Hirokazu*** ; Buza, Joram Josephat
PA Incorporated Administrative Agency National Agriculture and Bio-Oriented Research Organization, Japan
SO PCT Int. Appl., 38 pp.
CODEN: PIXXD2
DT Patent
LA Japanese
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2005029079	A1	20050331	WO 2003-JP11845	20030917
W: AU, JP, US				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR				
AU 2003272880	A1	20050411	AU 2003-272880	20030917
AU 2003272880	B2	20090305		
JP 4359684	B2	20091104	JP 2005-509040	20030917
US 20080038758	A1	20080214	US 2007-572514	20070426
PRAI WO 2003-JP11845	A	20030917		

ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB A method for diagnosing johne's disease is provided, with which an animal infected with Mycobacterium ***paratuberculosis*** (Johne's) can be diagnosed at a high sensitivity in the inapparent infection stage before the specific antibody level begins to increase, and a large no. of specimens can be treated. The method is characterized in that it comprises collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium ***paratuberculosis*** antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood. The method is also characterized in that the IFN.gamma. yield in blood is measured by the IFN.gamma. ELISA method. Also provided is a method for diagnosing mycobacteriosis, which is characterized by comprising collecting a blood sample of a subject animal, adding an anti-IL-10 antibody and a Mycobacterium antigen to the collected blood followed by culturing, and then, measuring the IFN.gamma. yield in the cultured blood.
OSC.G 1 THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 5 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 1
AN 2004:438665 BIOSIS <<LOGINID::20100115>>
DN PREV200400437489
TI Neutralization of interleukin-10 significantly enhances gamma interferon expression in peripheral blood by stimulation with Johnin purified protein derivative and by infection with Mycobacterium avium subsp. ***paratuberculosis*** in experimentally infected cattle with ***paratuberculosis*** .
AU Buza, Jorarn J.; ***Hikono, Hirokazu*** ; Mori, Yasuyuki; Nagata, Reiko; Hirayama, Sachiyo; Bari, Abusaleh M.; Aodon-geril; Shu, Yujing; Tsuji, Noriko M.; Momotani, Eiichi [Reprint Author]
CS ParaTB and Inflammatory Bowel Dis Res Team, NIAH, 3-1-5 Kannondai, Tsukuba, Ibaraki, 3050856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (April 2004) Vol. 72, No. 4, pp. 2425-2428. print. ISSN: 0019-9567 (ISSN print).

DT Article
LA English
ED Entered STN: 17 Nov 2004
Last Updated on STN: 17 Nov 2004
AB Monoclonal antibody neutralization of interleukin-10 (IL-10) increased Johnin purified protein derivative-induced whole-blood gamma interferon (IFN-gamma) secretion 23-fold and also increased IFN-gamma secretion ninefold following in vitro Mycobacterium avium subsp. ***paratuberculosis*** infection of peripheral blood mononuclear cells. These results demonstrate the suppressive effect of IL-10 on immune responses to M. avium subsp. ***paratuberculosis*** infection in cattle.

L6 ANSWER 3 OF 5 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN DUPLICATE 2
AN 2004:64047 BIOSIS <<LOGINID::20100115>>
DN PREV200400065534
TI Mycobacterium avium subsp. ***paratuberculosis*** infection causes suppression of RANTES, monocyte chemoattractant protein 1, and tumor necrosis factor alpha expression in peripheral blood of experimentally infected cattle.
AU Buza, Joram J.; Mori, Yasuyuki; Bari, Abusaleh M.; ***Hikono,*** ***Hirokazu*** ; Aodon-geril; Hirayama, Sachiyo; Shu, Yujing; Momotani, Eiichi [Reprint Author]
CS Paratuberculosis and Inflammatory Bowel Disease Research Team, NIAH, 3-1-5 Kan-nondai, Tsukuba, 305-0856, Japan
momotani@affrc.go.jp
SO Infection and Immunity, (December 2003) Vol. 71, No. 12, pp. 7223-7227. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 28 Jan 2004
Last Updated on STN: 28 Jan 2004
AB Blood from cattle with subclinical Mycobacterium avium subsp. ***paratuberculosis*** infection was stimulated with M. avium subsp. ***paratuberculosis*** antigens, and expression of interleukin-1beta (IL-1beta), tumor necrosis factor alpha (TNF-alpha), RANTES, monocyte chemoattractant protein 1 (MCP-1), and IL-8 was measured. Expression of TNF-alpha, RANTES, and MCP-1 was lower in infected than in uninfected cattle. The reduced response may weaken protective immunity and perpetuate infection.

L6 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2003:399194 CAPLUS <<LOGINID::20100115>>
DN 140:39839
TI Studies on diagnostic methods for bovine ***paratuberculosis***
AU Mori, Yasuyuki; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; ***Hikono, Hirokazu*** ; Momotani, Eiichi
CS Immune System Section, Department of Immunology, National Institute of Animal Health, Tsukuba, 305-0856, Japan
SO Dobutsu Eisei Kenkyusho Kenkyu Hokoku (2003), Volume Date 2002, 109, 33-42
CODEN: DEKKC9; ISSN: 1347-2542
PB Nogyo Gijutsu Kenkyu Kiko Dobutsu Eisei Kenkyusho
DT Journal
LA Japanese
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serol. assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a no. of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found. (1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in fecal samples. (2) In the interferon gamma (IFN-.gamma.) assay using johnin purified protein deriv. (J-PPD), bovine tuberculin PPD and Con A (Con A), IFN-.gamma. responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-.gamma. assay by the higher IFN-.gamma. responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. (3) Monoclonal antibody (711-1-1) which recognizes the lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serol. tests. (4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepd. and successfully applied to induce IFN-.gamma. from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . (5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

L6 ANSWER 5 OF 5 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
AN 2003:329566 BIOSIS <<LOGINID::20100115>>
DN PREV200300329566
TI Studies on the diagnostic methods for bovine ***paratuberculosis*** .
AU Mori, Yasuyuki [Reprint Author]; Kikuma, Reiko; Muneta, Yoshihiro; Yoshihara, Kazuhiro; ***Hikono, Hirokazu*** ; Momotani, Eiichi
CS Immune System Section, Department of Immunology, National Institute of Animal Health, 3-1-5 Kannondai, Tsukuba, Ibaraki, 305-0856, Japan
yamori@affrc.go.jp
SO Bulletin of the National Institute of Animal Health, (2002) No. 109, pp. 33-42. print.
ISSN: 1347-2542 (ISSN print).
DT Article
LA Japanese
ED Entered STN: 16 Jul 2003
Last Updated on STN: 16 Jul 2003
AB Current diagnostic tests for ***paratuberculosis*** principally rest on serological assay, bacterial culture and the johnin skin test. However, diagnostic tests that are both sensitive and specific for detecting all subclinically affected animals have not yet been found. Therefore, a number of studies have been conducted in order to find rapid and accurate diagnostic methods for ***paratuberculosis*** . As a result, the following have been found; 1) PCR test with internal control DNA is accurate, sensitive and rapid for the detection of Mycobacterium avium subsp. ***paratuberculosis*** in faecal samples. 2) In the interferon gamma (IFN-gamma) assay using johnin purified protein derivative (J-PPD), bovine tuberculin PPD and concanavalin A (Con A), IFN-gamma responses against J-PPD were the highest in affected animals. On the contrary those of Con A were the highest in healthy animals. Interpretation of the IFN-gamma assay by the higher IFN-gamma responses against J-PPD than those of Con A is preferable as one of the diagnostic criteria. 3) Monoclonal antibody (711-1-1) which recognizes the

lipoarabinomannan antigen of M. avium subsp. ***paratuberculosis*** did not react with M. avium subsp. avium, and showed potential usefulness in the serological tests. 4) A recombinant alkyl hydroperoxide reductase C of M. avium subsp. ***paratuberculosis*** has been prepared and successfully applied to induce IFN-gamma from peripheral blood mononuclear cells of animals infected with M. avium subsp. ***paratuberculosis*** . 5) In the course of study on the role of cytokines, monocyte chemoattractant protein-1 seems to be involved in the pathogenesis of ***paratuberculosis*** .

```
=> e buza joram josephat/au
E1          18     BUZA JORAM J/AU
E2           1     BUZA JORAM J DR/AU
E3           1 --> BUZA JORAM JOSEPHAT/AU
E4           1     BUZA JORARN J/AU
E5           7     BUZA K/AU
E6          22     BUZA L/AU
E7           1     BUZA L N/AU
E8           1     BUZA L V/AU
E9           7     BUZA LAJOSNE/AU
E10          3     BUZA LASZLO/AU
E11          1     BUZA LEJLA/AU
E12         32     BUZA M/AU

=> s e1-e4 and paratuberculosis
L7           9 ("BUZA JORAM J"/AU OR "BUZA JORAM J DR"/AU OR "BUZA JORAM JOSEPH
               AT"/AU OR "BUZA JORARN J"/AU) AND PARATUBERCULOSIS

=> dup rem l7
PROCESSING COMPLETED FOR L7
L8            3 DUP REM L7 (6 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 3 ANSWERS - CONTINUE? Y/(N):y

L8   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2010 ACS on STN
AN   2005:283672  CAPLUS <<LOGINID::20100115>>
DN   142:334896
TI   Method for diagnosing johne's disease
IN   Momotani, Eiichi; Mori, Yasuyuki; Hikono, Hirokazu;  ***Buza, Joram***
  ***     Josephat***
PA   Incorporated Administrative Agency National Agriculture and Bio-Oriented
     Research Organization, Japan
SO   PCT Int. Appl., 38 pp.
     CODEN: PIXXD2
DT   Patent
LA   Japanese
FAN.CNT 1
     PATENT NO.          KIND   DATE       APPLICATION NO.       DATE
     --------------      ----   --------   -------------------   --------
PI   WO 2005029079       A1     20050331   WO 2003-JP11845       20030917
         W:  AU, JP, US
         RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE,
             IT, LU, MC, NL, PT, RO, SE, SI, SK, TR
     AU 2003272880       A1     20050411   AU 2003-272880        20030917
     AU 2003272880       B2     20090305
     JP 4359684          B2     20091104   JP 2005-509040        20030917
     US 20080038758      A1     20080214   US 2007-572514        20070426
PRAI WO 2003-JP11845     A      20030917
ASSIGNMENT HISTORY FOR US PATENT AVAILABLE IN LSUS DISPLAY FORMAT
AB   A method for diagnosing johne's disease is provided, with which an animal
     infected with Mycobacterium  ***paratuberculosis***  (Johne's) can be
     diagnosed at a high sensitivity in the inapparent infection stage before
     the specific antibody level begins to increase, and a large no. of
     specimens can be treated.  The method is characterized in that it
     comprises collecting a blood sample of a subject animal, adding an
     anti-IL-10 antibody and a Mycobacterium  ***paratuberculosis***  antigen
     to the collected blood followed by culturing, and then, measuring the
     IFN.gamma. yield in the cultured blood.  The method is also characterized
     in that the IFN.gamma. yield in blood is measured by the IFN.gamma. ELISA
     method.  Also provided is a method for diagnosing mycobacteriosis, which
     is characterized by comprising collecting a blood sample of a subject
     animal, adding an anti-IL-10 antibody and a Mycobacterium antigen to the
     collected blood followed by culturing, and then, measuring the IFN.gamma.
     yield in the cultured blood.
OSC.G  1     THERE ARE 1 CAPLUS RECORDS THAT CITE THIS RECORD (1 CITINGS)
RE.CNT 3     THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8   ANSWER 2 OF 3  BIOSIS  COPYRIGHT (c) 2010 The Thomson Corporation  on STN
     DUPLICATE 1
AN   2004:438665  BIOSIS <<LOGINID::20100115>>
DN   PREV200400437489
TI   Neutralization of interleukin-10 significantly enhances gamma interferon
     expression in peripheral blood by stimulation with Johnin purified protein
     derivative and by infection with Mycobacterium avium subsp.
       ***paratuberculosis***  in experimentally infected cattle with
       ***paratuberculosis*** .
AU     ***Buza, Jorarn J.***  ; Hikono, Hirokazu; Mori, Yasuyuki; Nagata,
     Reiko; Hirayama, Sachiyo; Bari, Abusaleh M.; Aodon-geril; Shu, Yujing;
     Tsuji, Noriko M.; Momotani, Eiichi [Reprint Author]
CS   ParaTB and Inflammatory Bowel Dis Res Team, NIAH, 3-1-5 Kannondai,
     Tsukuba, Ibaraki, 3050856, Japan
     momotani@affrc.go.jp
SO   Infection and Immunity, (April 2004) Vol. 72, No. 4, pp. 2425-2428. print.
     ISSN: 0019-9567 (ISSN print).
DT   Article
LA   English
ED   Entered STN: 17 Nov 2004
     Last Updated on STN: 17 Nov 2004
AB   Monoclonal antibody neutralization of interleukin-10 (IL-10) increased
     Johnin purified protein derivative-induced whole-blood gamma interferon
     (IFN-gamma) secretion 23-fold and also increased IFN-gamma secretion
     ninefold following in vitro Mycobacterium avium subsp.
       ***paratuberculosis***  infection of peripheral blood mononuclear cells.
     These results demonstrate the suppressive effect of IL-10 on immune
     responses to M. avium subsp.  ***paratuberculosis***  infection in
     cattle.

L8   ANSWER 3 OF 3  BIOSIS  COPYRIGHT (c) 2010 The Thomson Corporation  on STN
     DUPLICATE 2
AN   2004:64047  BIOSIS <<LOGINID::20100115>>
DN   PREV200400065534
```

TI Mycobacterium avium subsp. ***paratuberculosis*** infection causes suppression of RANTES, monocyte chemoattractant protein 1, and tumor necrosis factor alpha expression in peripheral blood of experimentally infected cattle.
AU ***Buza, Joram J.*** ; Mori, Yasuyuki; Bari, Abusaleh M.; Hikono, Hirokazu; Aodon-geril; Hirayama, Sachiyo; Shu, Yujing; Momotani, Eiichi [Reprint Author]
CS Paratuberculosis and Inflammatory Bowel Disease Research Team, NIAH, 3-1-5 Kan-nondai, Tsukuba, 305-0856, Japan momotani@affrc.go.jp
SO Infection and Immunity, (December 2003) Vol. 71, No. 12, pp. 7223-7227. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 28 Jan 2004
Last Updated on STN: 28 Jan 2004
AB Blood from cattle with subclinical Mycobacterium avium subsp. ***paratuberculosis*** infection was stimulated with M. avium subsp. ***paratuberculosis*** antigens, and expression of interleukin-1beta (IL-1beta), tumor necrosis factor alpha (TNF-alpha), RANTES, monocyte chemoattractant protein 1 (MCP-1), and IL-8 was measured. Expression of TNF-alpha, RANTES, and MCP-1 was lower in infected than in uninfected cattle. The reduced response may weaken protective immunity and perpetuate infection.

=> s paratuberculosis and diagnos? and interferon and interleukin and antibody
L9 17 PARATUBERCULOSIS AND DIAGNOS? AND INTERFERON AND INTERLEUKIN AND ANTIBODY

=> dup rem l9
PROCESSING COMPLETED FOR L9
L10 11 DUP REM L9 (6 DUPLICATES REMOVED)

=> d bib ab kwic 1-
YOU HAVE REQUESTED DATA FROM 11 ANSWERS - CONTINUE? Y/(N):y

L10 ANSWER 1 OF 11 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
AN 2009351695 EMBASE <<LOGINID::20100115>>
TI Neutralization of ***interleukin*** -10 from CD14+ monocytes enhances gamma ***interferon*** production in peripheral blood mononuclear cells from Mycobacterium avium subsp. ***paratuberculosis*** -infected goats.
AU Lybeck, Kari R.; Olsen, Ingrid
CS Department of Animal Health, National Veterinary Institute, Pb 750 Sentrum, Oslo 0106, Norway. kari.lybeck@vetinst.no
AU Storset, Anne K.
CS Department of Food Safety and Infection Biology, Norwegian School of Veterinary Science, Oslo, Norway.
AU Lybeck, K. R. (correspondence)
CS Department of Animal Health, National Veterinary Institute, Pb 750 Sentrum, Oslo 0106, Norway. kari.lybeck@vetinst.no
SO Clinical and Vaccine Immunology, (July 2009) Vol. 16, No. 7, pp. 1003-1011.
Refs: 44
ISSN: 1556-6811; E-ISSN: 1556-679X
PB American Society for Microbiology, 1752 N Street N.W., Washington, DC 20036-2904, United States.
CY United States
DT Journal; Article
FS 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation
LA English
SL English
ED Entered STN: 19 Aug 2009
Last Updated on STN: 19 Aug 2009
AB The gamma ***interferon*** assay is used to identify Mycobacterium avium subsp. ***paratuberculosis*** -infected animals. It has been suggested that regulatory mechanisms could influence the sensitivity of the test when it is performed with cells from cattle and that the neutralization of ***interleukin*** -10 (IL-10) in vitro would increase the gamma ***interferon*** responses. To investigate the regulatory mechanisms affecting the gamma ***interferon*** assay with cells from goats, blood was collected from M. avium subsp. ***paratuberculosis*** -infected, M. avium subsp. ***paratuberculosis*** -exposed, and noninfected goats. Neutralization of IL-10 by a monoclonal ***antibody*** resulted in increased levels of gamma ***interferon*** production in M. avium subsp. ***paratuberculosis*** purified protein derivative (PPDj)-stimulated samples from both infected and exposed goats. However, the levels of gamma ***interferon*** release were also increased in unstimulated cells and in PPDj-stimulated cells from some noninfected animals following neutralization. Depletion of putative regulatory CD25high T cells had no clear effect on the number of gamma-***interferon*** -producing cells. The IL-10-producing cells were identified to be mainly CD14+ major histocompatibility complex class II-positive monocytes in both PPDj-stimulated and control cultures and not regulatory T cells. However, possible regulatory CD4+ CD25+ T cells produced IL-10 in response to concanavalin A stimulation. The numbers of CD4+, CD8+, and CD8+ .gamma..delta.T-cell receptor-positive cells producing gamma ***interferon*** increased following IL-10 neutralization. These results provide insight into the source and the role of IL-10 in gamma ***interferon*** assays with cells from goats and suggest that IL-10 from monocytes can regulate both innate and adaptive gamma ***interferon*** production from several cell types. Although IL-10 neutralization increased the sensitivity of the gamma ***interferon*** assay, the specificity of the test could be compromised.
TI Neutralization of ***interleukin*** -10 from CD14+ monocytes enhances gamma ***interferon*** production in peripheral blood mononuclear cells from Mycobacterium avium subsp. ***paratuberculosis*** -infected goats.
AB The gamma ***interferon*** assay is used to identify Mycobacterium avium subsp. ***paratuberculosis*** -infected animals. It has been suggested that regulatory mechanisms could influence the sensitivity of the test when it is performed with cells from cattle and that the neutralization of ***interleukin*** -10 (IL-10) in vitro would increase the gamma ***interferon*** responses. To investigate the regulatory mechanisms affecting the gamma ***interferon*** assay with cells from goats, blood was collected from M. avium subsp. ***paratuberculosis*** -infected, M. avium subsp. ***paratuberculosis*** -exposed, and

noninfected goats. Neutralization of IL-10 by a monoclonal ***antibody*** resulted in increased levels of gamma ***interferon*** production in M. avium subsp. ***paratuberculosis*** purified protein derivative (PPDj)-stimulated samples from both infected and exposed goats. However, the levels of gamma ***interferon*** release were also increased in unstimulated cells and in PPDj-stimulated cells from some noninfected animals following neutralization. Depletion of putative regulatory CD25high T cells had no clear effect on the number of gamma-***interferon*** -producing cells. The IL-10-producing cells were identified to be mainly CD14+ major histocompatibility complex class II-positive monocytes in both PPDj-stimulated and. . . produced IL-10 in response to concanavalin A stimulation. The numbers of CD4+, CD8+, and CD8+ .gamma..delta.T-cell receptor-positive cells producing gamma ***interferon*** increased following IL-10 neutralization. These results provide insight into the source and the role of IL-10 in gamma ***interferon*** assays with cells from goats and suggest that IL-10 from monocytes can regulate both innate and adaptive gamma ***interferon*** production from several cell types. Although IL-10 neutralization increased the sensitivity of the gamma ***interferon*** assay, the specificity of the test could be compromised. Copyright .COPYRGT. 2009, American Society for Microbiology. All Rights Reserved.

CT Medical Descriptors:
animal cell
animal experiment
animal model
article
bacterium detection
CD4+ CD25+ T lymphocyte
CD4+ T lymphocyte
CD8+ T lymphocyte
cell assay
cell count
cell culture
cell stimulation
cell type
controlled study
cytokine production
cytokine release
goat
immunity
monocyte
****mycobacteriosis: DI, diagnosis***
****Mycobacterium paratuberculosis***
nonhuman
nucleotide sequence
*peripheral blood mononuclear cell
priority journal
protein depletion
protein purification
regulatory mechanism
regulatory T lymphocyte
sensitivity and specificity
T lymphocyte
*CD14 antigen: EC, endogenous compound
concanavalin A: EC, endogenous compound
****gamma interferon: EC, endogenous compound***
****interleukin 10: EC, endogenous compound***
****interleukin 2 receptor alpha: EC, endogenous compound***
major histocompatibility antigen class 2: EC, endogenous compound
****neutralizing antibody: EC, endogenous compound***
protein derivative: EC, endogenous compound
T lymphocyte receptor: EC, endogenous compound

RN (concanavalin A) 11028-71-0; (gamma ***interferon***) 82115-62-6

L10 ANSWER 2 OF 11 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN DUPLICATE 1

AN 2009028862 EMBASE <<LOGINID::20100115>>

TI Association between milk ***antibody*** and ***interferon*** -gamma responses in cattle from Mycobacterium avium subsp. ***paratuberculosis*** infected herds.

AU Mikkelsen, Heidi (correspondence); Jungersen, Gregers
CS Section for Immunology and Parasitology, National Veterinary Institute, Technical University of Denmark, Bulowsvej 27, DK-1790 Copenhagen V, Denmark. heimi@vet.dtu.dk
AU Mikkelsen, Heidi (correspondence); Nielsen, Soren Saxmose
CS Department of Large Animal Sciences, Faculty of Life Sciences, University of Copenhagen, Gronnegardsvej 8, DK-1870 Frederiksberg C, Denmark. heimi@vet.dtu.dk

SO Veterinary Immunology and Immunopathology, (15 Feb 2009) Vol. 127, No. 3-4, pp. 235-241.
Refs: 25
ISSN: 0165-2427 CODEN: VIIMDS
PB Elsevier, P.O. Box 211, Amsterdam, 1000 AE, Netherlands.
PUI S 0165-2427(08)00690-9
CY Netherlands
DT Journal; Article
FS 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
005 General Pathology and Pathological Anatomy
026 Immunology, Serology and Transplantation
LA English
SL English
ED Entered STN: 24 Feb 2009
Last Updated on STN: 24 Feb 2009

AB ***Paratuberculosis*** is a chronic infection of ruminants caused by Mycobacterium avium subsp. ***paratuberculosis*** (MAP). It is possible to detect infection with ***paratuberculosis*** at different stages of disease by means of various ***diagnostic*** test strategies. The objective of the present study was to evaluate if early cell-mediated immunity could predict the ***antibody*** results of milk samples in cattle with different faecal culture (FC) status. A group of 975 cows from 18 Danish MAP infected dairy herds was studied during a 3-year period. Cell-mediated immunity was measured in blood samples from heifers by use of an IL-12 potentiated IFN-.gamma. protocol. Following calving, milk samples were collected and analysed for MAP specific antibodies by ELISA and faecal samples were cultured. The relationship between the variables IFN-.gamma. and FC and the outcome of ELISA was assessed using generalised additive models. The results of the study showed that a significant association exists between early IFN-.gamma. and later FC status with occurrence of antibodies. In addition, the early IFN-.gamma. and FC status affect the ***antibody*** ELISA result at different stages post calving. We observed that only some IFN-.gamma. positive animals developed a positive ***antibody*** response against MAP, which indicate that cell-mediated immune responses can control or eradicate MAP in many animals. .COPYRGT. 2008 Elsevier B.V. All rights

reserved.

TI Association between milk ***antibody*** and ***interferon*** -gamma responses in cattle from Mycobacterium avium subsp. ***paratuberculosis*** infected herds.

AB ***Paratuberculosis*** is a chronic infection of ruminants caused by Mycobacterium avium subsp. ***paratuberculosis*** (MAP). It is possible to detect infection with ***paratuberculosis*** at different stages of disease by means of various ***diagnostic*** test strategies. The objective of the present study was to evaluate if early cell-mediated immunity could predict the ***antibody*** results of milk samples in cattle with different faecal culture (FC) status. A group of 975 cows from 18 Danish. . . early IFN-.gamma. and later FC status with occurrence of antibodies. In addition, the early IFN-.gamma. and FC status affect the ***antibody*** ELISA result at different stages post calving. We observed that only some IFN-.gamma. positive animals developed a positive ***antibody*** response against MAP, which indicate that cell-mediated immune responses can control or eradicate MAP in many animals. .COPYRGT. 2008 Elsevier. . .

CT Medical Descriptors:
antibody response
antibody specificity
article
blood sampling
calf (bovine)
cellular immunity
cow
dairy cattle
enzyme linked immunosorbent assay
feces analysis
feces culture
heifer
herd
herd immunity
immune response
immunopotentiation
milk
Mycobacterium avium
outcome assessment
****paratuberculosis: DI, diagnosis***
****paratuberculosis: ET, etiology***
****gamma interferon: EC, endogenous compound***
interleukin 12: EC, endogenous compound

ST Antibodies; Cell-mediated immunity; ELISA; ***Interferon*** -gamma; ***Paratuberculosis***

RN (gamma ***interferon***) 82115-62-6; (***interleukin*** 12) 138415-13-1

L10 ANSWER 3 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN

AN 2008:1023242 CAPLUS <<LOGINID::20100115>>

DN 150:396198

TI Immunogenicity and protective efficacy of DNA vaccines encoding MAP0586c and MAP4308c of Mycobacterium avium subsp. ***paratuberculosis*** secretome

AU Roupie, Virginie; Leroy, Baptiste; Rosseels, Valerie; Piersoel, Virginie; Noel-Georis, Isabelle; Romano, Marta; Govaerts, Marc; Letesson, Jean-Jacques; Wattiez, Ruddy; Huygen, Kris

CS Laboratory of Mycobacterial Immunology, Department Pasteur, Scientific Institute of Public Health IPH-WIV-ISP, Brussels, B1180, Belg.

SO Vaccine (2008), 26(37), 4783-4794
CODEN: VACCDE; ISSN: 0264-410X

PB Elsevier Ltd.

DT Journal

LA English

AB Mycobacterium avium subsp. ***paratuberculosis*** (MAP), the etiol. agent of chronic enteritis of the small intestine in domestic and wild ruminants, causes substantial losses to livestock industry. Control of this disease is seriously hampered by the lack of adequate ***diagnostic*** tools, vaccines and therapies. In this study, we have evaluated the vaccine potential of two MAP proteins, i.e. MAP0586c and MAP4308c, previously identified by postgenomic and immunoproteomic anal. of MAP secretome as novel serodiagnostic antigens. Immunizations of BALB/c and C57BL/6 mice with plasmid DNA encoding MAP0586c and MAP4308c induced strong Th1 type immune responses to both antigens, whereas ***antibody*** responses were only induced upon immunization with DNA encoding MAP4308c. Homologous boosting of DNA vaccinated mice with recombinant protein resulted in strong ***antibody*** responses against both proteins. Using synthetic overlapping peptides, immunodominant H-2d and H-2b restricted Th1 T cell epitopes were identified. Finally, MAP infected mice generated strong MAP0586c-specific T cell responses and MAP0586c DNA vaccination could protect BALB/c but not C57BL/6 mice against MAP challenge mice to the same extent as the Mycobacterium bovis BCG vaccine, indicating that this putative transglycosylase is an interesting vaccine candidate that warrants further investigation.

OSC.G 2 THERE ARE 2 CAPLUS RECORDS THAT CITE THIS RECORD (2 CITINGS)

RE.CNT 57 THERE ARE 57 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

TI Immunogenicity and protective efficacy of DNA vaccines encoding MAP0586c and MAP4308c of Mycobacterium avium subsp. ***paratuberculosis*** secretome

AB Mycobacterium avium subsp. ***paratuberculosis*** (MAP), the etiol. agent of chronic enteritis of the small intestine in domestic and wild ruminants, causes substantial losses to livestock industry. Control of this disease is seriously hampered by the lack of adequate ***diagnostic*** tools, vaccines and therapies. In this study, we have evaluated the vaccine potential of two MAP proteins, i.e. MAP0586c and. . . and C57BL/6 mice with plasmid DNA encoding MAP0586c and MAP4308c induced strong Th1 type immune responses to both antigens, whereas ***antibody*** responses were only induced upon immunization with DNA encoding MAP4308c. Homologous boosting of DNA vaccinated mice with recombinant protein resulted in strong ***antibody*** responses against both proteins. Using synthetic overlapping peptides, immunodominant H-2d and H-2b restricted Th1 T cell epitopes were identified. Finally,. . .

ST DNA vaccine Mycobacterium IgG IL2 ***interferon*** gamma

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG1; immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies ***paratuberculosis***)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2a; immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies

paratuberculosis)
IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(IgG2b; immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies
paratuberculosis)
IT Mycobacterium avium
Mycobacterium bovis
Vaccines
(immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies
paratuberculosis)
IT ***Interleukin*** 2
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies
paratuberculosis)
IT Epitopes
(mapping; immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies
paratuberculosis)
IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(.gamma.; immunogenicity and protective efficacy of DNA vaccine encoding MAP0586c and MAP4308c of Mycobacterium avium subspecies
paratuberculosis)

L10 ANSWER 4 OF 11 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
AN 2008359316 EMBASE <<LOGINID::20100115>>
TI CXCL10+ T cells and NK cells assist in the recruitment and activation of CXCR3+ and CXCL11+ leukocytes during Mycobacteria-enhanced colitis.
AU Singh, Udai P.; Lillard Jr., James W. (correspondence)
CS Department of Microbiology, Biochemistry, and Immunology, Morehouse School of Medicine, Atlanta, GA, United States. usingh@gw.med.sc.edu; james.lillard@louisville.edu
AU Singh, Rajesh; Singh, Shailesh; Lillard Jr., James W. (correspondence)
CS Department of Microbiology and Immunology, University of Louisville, Louisville, KY, United States. shailesh.singh@louisville.edu; james.lillard@louisville.edu; rajesh.singh@louisville.edu
AU Karls, Russell K.; Quinn, Frederick D.
CS Department of Infectious Diseases, College of Veterinary Medicine, University of Georgia, Athens, GA, United States. fquinn@vet.uga.edu; rkarls@uga.edu
AU Taub, Dennis D.
CS Laboratory of Immunology, National Institute of Aging, Gerontology Research Center, Baltimore, MD, United States. TaubD@grc.nia.nih.gov
SO BMC Immunology, (4 Jun 2008) Vol. 9. arn. 25.
Refs: 41
E-ISSN: 1471-2172 CODEN: BIMMCV
PB BioMed Central Ltd., 34 - 42 Cleveland Street, London, W1T 4LB, United Kingdom.
CY United Kingdom
DT Journal; Article
FS 004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
026 Immunology, Serology and Transplantation
048 Gastroenterology
LA English
SL English
ED Entered STN: 8 Aug 2008
Last Updated on STN: 8 Aug 2008
AB Background: The role of Mycobacteria in the etiology of Crohn's disease (CD) has been a contentious subject for many years. Recently, our laboratory showed that spontaneous colitis in IL-10-/- mice is driven in part by antigens (Ags) conserved in Mycobacteria. The present study dissects some of the common cellular and molecular mechanism that drive Mycobacteria-mediated and spontaneous colitis in IL-10-/- mice. Results: We show that serum from inflammatory bowel disease (IBD) patients contain significantly higher levels of Mycobacterium avium ***paratuberculosis*** -specific IgG1 and IgG2 antibodies (Abs), serum amyloid A (SAA) as well as CXCR3 ligands than serum from healthy donors. To study the cellular mechanisms of Mycobacteria-associated colitis, pathogen-free IL-10-/- mice were given heat-killed or live M. avium ***paratuberculosis*** . The numbers of mucosal T cells, neutrophils, NK/NKT cells that expressed TNF.alpha., IFN-.gamma., and/or CXCL10 were significantly higher in mice that received live Mycobacteria than other groups. The numbers of mucosal CXCR3+, CXCL9+, CXCL11+ and/or IFN-.gamma.+ dendritic cells (DCs) were also significantly higher in M. avium ***paratuberculosis*** -challenged mice, than compared to control mice. Conclusion: The present study shows that CD and UC patients mount significant Mycobacteria-specific IgG1 > IgG2 and CXCR3 ligand responses. Several cellular mechanisms that drive spontaneous colitis also mediate Mycobacteria-enhanced colitis in IL-10-/- mice. Similar to IL-10-/- mice under conventional housing, we show that Mycobacteria-challenge IL-10-/- mice housed under otherwise pathogen-free conditions develop colitis that is driven by CXCR3- and CXCR3 ligand-expressing leukocytes, which underscores another important hallmark and molecular mechanism of colitis. Together, the data show that Mycobacteria-dependent host responses, namely CXCL10+ T cells and NK cells, assist in the recruitment and activation of CXCR3+ and CXCL11+ leukocytes to enhance colitis of susceptible hosts. .COPYRGT. 2008 Singh et al; licensee BioMed Central Ltd.
AB . . . IL-10-/- mice. Results: We show that serum from inflammatory bowel disease (IBD) patients contain significantly higher levels of Mycobacterium avium ***paratuberculosis*** -specific IgG1 and IgG2 antibodies (Abs), serum amyloid A (SAA) as well as CXCR3 ligands than serum from healthy donors. To study the cellular mechanisms of Mycobacteria-associated colitis, pathogen-free IL-10-/- mice were given heat-killed or live M. avium ***paratuberculosis*** . The numbers of mucosal T cells, neutrophils, NK/NKT cells that expressed TNF.alpha., IFN-.gamma., and/or CXCL10 were significantly higher in mice. . . groups. The numbers of mucosal CXCR3+, CXCL9+, CXCL11+ and/or IFN-.gamma.+ dendritic cells (DCs) were also significantly higher in M. avium ***paratuberculosis*** -challenged mice, than compared to control mice. Conclusion: The present study shows that CD and UC patients mount significant Mycobacteria-specific IgG1. . .
CT Medical Descriptors:
adult
animal cell
animal experiment
animal model
animal tissue
antibody specificity
article
*colitis: ET, etiology

controlled study
Crohn disease: DI, diagnosis
dendritic cell
disease course
enteritis: ET, etiology
female
human
immune response
immunopathogenesis
leukocyte activation
lymphocyte count
major clinical study
molecular dynamics
mouse
mucosa cell
Mycobacterium paratuberculosis
natural killer cell
natural killer T cell
nonhuman
protein analysis
protein blood level
protein expression
T lymphocyte
ulcerative colitis: DI, diagnosis
*chemokine receptor CXCR3: EC, endogenous compound
*CXCL11 chemokine: EC, endogenous compound
CXCL9 chemokine: EC, endogenous compound
gamma interferon: EC, endogenous compound
****gamma interferon inducible protein 10: EC, endogenous compound***
immunoglobulin antibody: EC, endogenous compound
immunoglobulin G1: EC, endogenous compound
immunoglobulin G1 antibody: EC, endogenous compound
immunoglobulin G2: EC, endogenous compound
immunoglobulin g2 antibody: EC, endogenous compound
interleukin 10
interleukin 12
serum amyloid A: EC, endogenous compound
tumor necrosis factor alpha

RN (gamma ***interferon***) 82115-62-6; (gamma ***interferon*** inducible protein 10) 97741-20-3; (***interleukin*** 12) 138415-13-1

L10 ANSWER 5 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2007:906779 CAPLUS <<LOGINID::20100115>>
DN 147:275692
TI Sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in the early stages and paucibacillary infections
IN Ottenhof, Tom Henricus Maria; Geluk, Annemieke; Pereira Sampaio, Elizabeth
PA Leiden University Medical Center, Neth.
SO PCT Int. Appl., 70 pp.
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DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2007091881	A2	20070816	WO 2006-NL50105	20060428
WO 2007091881	A3	20071129		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA

PRAI EP 2005-103576 A 20050429
AB The current invention discloses new Mycobacterium leprae antigens to be used in methods and means for detection and ***diagnostics*** of M. leprae infections in subjects, in particular in the early stages of infection and in paucibacillary infections, which remain undetected using conventional ***diagnostic*** methods. The antigens disclosed in the invention are specific for M. leprae and the ***diagnostic*** method does not yield 'false pos.' results in individuals having an immune response against other Mycobacterial species, such as M. tuberculosis, M. bovis, M. ***paratuberculosis*** , M. avium, M. smegmatis,, M. ulcerans, M. microti, and M. marinum, or BCG vaccinated individuals. Thus, using bioinformatic anal. the antigen genes ML0573, ML0574, ML0575, ML0576, ML1602, ML1603, ML1604, ML1788, ML1989, ML1990, ML2283 and ML2567 were found to be unique to M. leprae. It was demonstrated, that all of above genes were expressed at the mRNA level in human leprosy tissue. Paucibacillary and reactional leprosy patients and healthy household contacts of leprosy patients produced significant levels of ***interferon*** (IFN)-.gamma. in response to the five unique M. leprae antigens encoded by ML0576, ML1989, ML1990, ML2283 and ML2567. Provided are gene and protein sequences, as well as sequences for epitope peptides for M. leprae-specific antigens ML0576, ML1989, ML1990, ML2283 and ML2567. A method for identifying Mycobacterium leprae antigens is also provided.
TI Sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in the early stages and paucibacillary infections
AB The current invention discloses new Mycobacterium leprae antigens to be used in methods and means for detection and ***diagnostics*** of M. leprae infections in subjects, in particular in the early stages of infection and in paucibacillary infections, which remain undetected using conventional ***diagnostic*** methods. The antigens disclosed in the invention are specific for M. leprae and the ***diagnostic*** method does not yield 'false pos.' results in individuals having an immune response against other Mycobacterial species, such as M. tuberculosis, M. bovis, M. ***paratuberculosis*** , M. avium, M. smegmatis,, M. ulcerans, M. microti, and M. marinum, or BCG vaccinated individuals. Thus, using bioinformatic anal. the. . . in human leprosy tissue. Paucibacillary and reactional leprosy patients and healthy household contacts of leprosy patients produced significant levels of ***interferon*** (IFN)-.gamma. in response to the five unique M. leprae antigens encoded by ML0576, ML1989, ML1990, ML2283 and ML2567. Provided are. . .
ST sequence Mycobacterium leprae antigen epitope ***diagnoses*** infection; leprosy immunodiagnosis Mycobacterium leprae antigen epitope; vaccine Mycobacterium leprae antigen epitope

IT Receptors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(4-1BB, anti-4-1BB agonistic ***antibody*** as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Human groups
(Brazilian patients; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT CD antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(CD137, anti-4-1BB agonistic ***antibody*** as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Genetic element
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(CpG island, CpG, as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HLA, class I, identifying T-cell epitopes for, using computer algorithms; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Histocompatibility antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(HLA, class II, identifying T-cell epitopes for, using computer algorithms; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Proteins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(LAG3 (lymphocyte activation gene-3), sol., as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML0573, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML0574, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML0575, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML0576, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Antigens
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ML0576; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1602, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1603, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1604, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1788, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1989, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Antigens
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use);

PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ML1989; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML1990, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Antigens
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ML1990; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML2283, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Antigens
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ML2283; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Gene, microbial
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(ML2567, expressed in human leprosy tissue; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Antigens
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(ML2567; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Lipopeptides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(Pam3Cys, as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Immunostimulants
(adjuvants, DA/TDB; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Immunostimulants
(adjuvants, DDA/MPL; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Immunostimulants
(adjuvants; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Monocyte
(anal., in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT ***Diagnostic*** agents
Vaccines
(antigens or epitopes as; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Lipid A
Lipopolysaccharides
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Mycobacterium
(as recombinant expression host; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Flagellins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(bacterial, as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT CD40 (antigen)
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(binding CD40 ligand or ***antibody*** , as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Mammalia
(***diagnosis*** and therapy; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Mycobacterium avium
Mycobacterium bovis
Mycobacterium marinum
Mycobacterium microti
Mycobacterium smegmatis
Mycobacterium tuberculosis
Mycobacterium ulcerans
(differentiating from; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Leprosy
(early stages ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT T cell
(epitopes; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Epitopes
(from ML0576, ML1989, ML1990, ML2283 and ML2567 antigens; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Algorithm
(identifying HLA class I and/or class II T-cell epitopes using; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT ***Diagnosis***
(immunodiagnosis, of ML0576, ML1989, ML1990, ML2283 and ML2567 antigens; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Blood analysis
(in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Helper T cell
(measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT ***Interleukin*** 10
Interleukin 15
Interleukin 2
Interleukin 4
Interleukin 6
Macrophage inflammatory protein 1.beta.
Transforming growth factor .beta.
Tumor necrosis factors
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Antibodies and Immunoglobulins
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(monoclonal, anti-4-1BB, agonistic, as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Genome
(of M. leprae, identifying unique antigen gene candidates in; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Protein sequences
(of M. leprae-specific antigens ML0576, ML1989, ML1990, ML2283 and ML2567; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT DNA sequences
(of M. leprae-specific genes ML0576, ML1989, ML1990, ML2283 and ML2567; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Blood cell
(of infected subject, IFN-.gamma. response in; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT ***Interleukin*** 12
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(p70, measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Human
(patients; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Infection
(paucibacillary, ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Bioinformatics
(sequence annotation, M. leprae unique genes; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Molecular cloning
Mycobacterium leprae
Test kits
(sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Skin
(test, by applying antigen under top skin; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Mycobacterium BCG
(vaccine, differentiating from; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)
IT Interferons
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(.alpha., measuring response, in ***diagnosis*** ; sequences for

Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Interferons
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(.beta., measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT Interferons
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(.gamma., measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 141256-04-4, QS21
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(MPL, as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 946442-88-2 946442-91-7
RL: PRP (Properties)
(Unclaimed; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in the early stages and paucibacillary infections)

IT 946400-78-8 946400-79-9 946400-80-2 946400-81-3 946400-82-4
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence, epitope; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 946442-52-0 946442-53-1 946442-54-2 946442-55-3 946442-56-4
RL: ADV (Adverse effect, including toxicity); ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); PRP (Properties); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(amino acid sequence; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 24939-03-5, Poly(I:C) 87420-41-5, Pam3Cys 911642-39-2, IC 31
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(as adjuvant; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 83869-56-1, GM-CSF
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study)
(measuring response, in ***diagnosis*** ; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 946442-57-5, DNA (Mycobacterium leprae gene ML0576) 946442-58-6, DNA (Mycobacterium leprae gene ML1989) 946442-59-7, DNA (Mycobacterium leprae gene ML1990) 946442-60-0, DNA (Mycobacterium leprae gene ML2283) 946442-61-1, DNA (Mycobacterium leprae gene ML2567)
RL: ADV (Adverse effect, including toxicity); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(nucleotide sequence; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in early stages and paucibacillary infections)

IT 946442-98-4 946442-99-5 946443-00-1 946443-01-2 946443-02-3 946443-03-4 946443-04-5 946443-05-6 946443-06-7 946443-07-8 946443-08-9 946443-09-0
RL: PRP (Properties)
(unclaimed nucleotide sequence; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in the early stages and paucibacillary infections)

IT 946442-86-0 946442-87-1 946442-89-3 946442-90-6 946442-92-8 946442-93-9 946442-94-0 946442-95-1 946442-96-2 946442-97-3
RL: PRP (Properties)
(unclaimed protein sequence; sequences for Mycobacterium leprae-specific antigens, and methods for treating and ***diagnosing*** M. leprae, particularly in the early stages and paucibacillary infections)

L10 ANSWER 6 OF 11 SCISEARCH COPYRIGHT (c) 2010 The Thomson Corporation on STN

AN 2007:1258619 SCISEARCH <<LOGINID::20100115>>

GA The Genuine Article (R) Number: 233YI

TI Enhancement of the sensitivity of the whole-blood gamma ***interferon*** assay for ***diagnosis*** of Mycobactetium bovis infections in cattle

AU Buddle, Bryce M. (Reprint)

CS Hopkirk res Inst, Palmerston North, New Zealand (Reprint)

AU Denis, Michel; Wedlock, D. Neil; McCarthy, Allison R.; Parlane, Natalie A.; Cockle, Paul J.; Vordermeier, H. Martin; Hewinson, R. Glyn

CS Vet Lab Agcy, Weybridge, Surrey, England

E-mail: bryce.buddle@agresearch.co.nz

CYA New Zealand; England

SO CLINICAL AND VACCINE IMMUNOLOGY, (NOV 2007) Vol. 14, No. 11, pp. 1483-1489.
ISSN: 1556-6811.

PB AMER SOC MICROBIOLOGY, 1752 N ST NW, WASHINGTON, DC 20036-2904 USA.

DT Article; Journal

LA English

REC Reference Count: 28

ED Entered STN: 27 Dec 2007
Last Updated on STN: 24 Jul 2008

ABSTRACT IS AVAILABLE IN THE ALL AND IALL FORMATS

AB In this study, we determined if the sensitivity of the currently available in vitro test to detect bovine tuberculosis could be enhanced by adding the following immunomodulators: ***interleukin*** -2 (IL-2); granulocytemacrophage colony-stimulating factor (GM-CSF); antibodies neutralizing IL-10 and transforming growth factor beta (TGF-beta); mono-methyl-L-arginine, which blocks nitric oxide production; and L-methyl-tryptophan, which interferes with the indoleamine dioxygenase pathway. Blood was obtained from uninfected control cattle, experimentally infected cattle, cattle responding positively to the skin test in tuberculosis-free areas (false positives), and cattle naturally

infected with Mycobacterium bovis from New Zealand and Great Britain. Gamma ***interferon*** (IFN-gamma) responses to bovine purified protein derivative (PPD-b), avian purified protein derivative, and a fusion protein of ESAT-6 and CFP-10 were measured. Mono-methyl-L-arginine, L-methyl-tryptophan, or an ***antibody*** neutralizing TGF-beta had minimal impact on IFN-gamma production. IL-2 and GM-CSF promoted IFN-gamma release whether antigen was present or not. In contrast, adding an ***antibody*** against IL-10 enhanced only antigen-specific responses. In particular, addition of anti-IL-10 to ESAT-6/CFP-10-stimulated blood cultures enhanced the test sensitivity. Furthermore, whole blood cells from field reactors produced substantial amounts of IL-10 upon stimulation with PPD-b or ESAT-6/CFP-10. Testing "false-positive" cattle from tuberculosis-free areas of New Zealand revealed that addition of anti-IL-10 did not compromise the test specificity. Therefore, the use of ESAT-6/CFP-10 with anti-IL-10 could be useful to detect cattle potentially infected with tuberculosis, which are not detected using current procedures.

TI Enhancement of the sensitivity of the whole-blood gamma ***interferon*** assay for ***diagnosis*** of Mycobactetium bovis infections in cattle

AB . . . sensitivity of the currently available in vitro test to detect bovine tuberculosis could be enhanced by adding the following immunomodulators: ***interleukin*** -2 (IL-2); granulocytemacrophage colony-stimulating factor (GM-CSF); antibodies neutralizing IL-10 and transforming growth factor beta (TGF-beta); mono-methyl-L-arginine, which blocks nitric oxide production;. . . test in tuberculosis-free areas (false positives), and cattle naturally infected with Mycobacterium bovis from New Zealand and Great Britain. Gamma ***interferon*** (IFN-gamma) responses to bovine purified protein derivative (PPD-b), avian purified protein derivative, and a fusion protein of ESAT-6 and CFP-10 were measured. Mono-methyl-L-arginine, L-methyl-tryptophan, or an ***antibody*** neutralizing TGF-beta had minimal impact on IFN-gamma production. IL-2 and GM-CSF promoted IFN-gamma release whether antigen was present or not. In contrast, adding an ***antibody*** against IL-10 enhanced only antigen-specific responses. In particular, addition of anti-IL-10 to ESAT-6/CFP-10-stimulated blood cultures enhanced the test sensitivity. Furthermore,. . .

STP KeyWords Plus (R): AVIUM SUBSP ***PARATUBERCULOSIS*** ; T-CELL; IMMUNE-RESPONSES; CALMETTE-GUERIN; TUBERCULOSIS; ***INTERLEUKIN*** -10; MACROPHAGES; VACCINATION; MODULATION; MECHANISMS

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AN 2006:423091 BIOSIS <<LOGINID::20100115>>

DN PREV200600423340

TI Differential expression of genes encoding CD30L and P-selectin in cattle with Johne's disease: Progress toward a ***diagnostic*** gene expression signature.

AU Skovgaard, Kerstin [Reprint Author]; Grell, Susanne Nedergaard; Heegaard, Peter M. H.; Jungersen, Gregers; Pudrith, Chas B.; Coussens, Paul M.

CS Danish Inst Food and Vet Res, Dept Vet Diagnost and Res, Bulowsvej 27, DK-1790 Copenhagen V, Denmark
kis@dfvf.dk

SO Veterinary Immunology and Immunopathology, (AUG 15 2006) Vol. 112, No. 3-4, pp. 210-224.
CODEN: VIIMDS. ISSN: 0165-2427.

DT Article

LA English

ED Entered STN: 23 Aug 2006
Last Updated on STN: 23 Aug 2006

AB Mycobacterium avium subspecies ***paratuberculosis*** (Mycobacterium ***paratuberculosis***), the causative agent of ***paratuberculosis***
(paraTB) or Johne's disease in ruminants, is a health problem for the global cattle industry with significant economic losses related to decreased milk production and reduced fertility. Commonly paraTB in cattle is ***diagnosed*** by ***antibody*** detection by serum enzyme-linked immunosorbent assay (ELISA), by detection of the pathogen by cultivation of individual faecal samples, or by in vitro measurement of cell mediated immune responses using the IFN-gamma test. There is an ongoing need for developing new ***diagnostic*** approaches as all currently available ***diagnostic*** tests for paraTB may fail to detect sub-clinical infection. We used cDNA microarrays to simultaneously measure expression of over 1300 host genes to help identify a subset of gene expression changes that might provide a unique gene expression signature for paraTB infection. In the present study, non-stimulated leukocytes isolated from 10 sub-clinical paraTB infected cows were examined for genes being expressed at significantly different levels than in similar cells from control cows with the same herd background. We included cattle (Holstein) from two locations (Denmark and USA) for the microarray experiment. Our results indicate that expression profiles of at least 52 genes are different in leukocytes from M. ***paratuberculosis*** infected cattle compared to control cattle. Gene
expression differences were verified by quantitative real-time reverse transcriptase polymerase chain reactions (qRT-PCR) on the same group of cattle (Holstein) used for the microarray experiment. In order to assess the generality of the observed gene expression, a second and different group of cattle (Jersey) was also examined using qRT-PCR. Out of the seven genes selected for qRT-PCR, CD30 ligand (CD30L) and P-selectin were consistently differentially expressed in freshly isolated leukocytes from paraTB infected and control animals of both breeds of cattle. Although further work is clearly needed to develop a more complete gene expression signature specific for paraTB, our results demonstrate that a subset of genes in leukocytes are consistently expressed at different levels, depending upon M. ***paratuberculosis*** infection status. (c) 2006 Elsevier B.V. All rights reserved.

TI Differential expression of genes encoding CD30L and P-selectin in cattle with Johne's disease: Progress toward a ***diagnostic*** gene expression signature.

AB Mycobacterium avium subspecies ***paratuberculosis*** (Mycobacterium ***paratuberculosis***), the causative agent of ***paratuberculosis***
(paraTB) or Johne's disease in ruminants, is a health problem for the global cattle industry with significant economic losses related to decreased milk production and reduced fertility. Commonly paraTB in cattle is ***diagnosed*** by ***antibody*** detection by serum enzyme-linked immunosorbent assay (ELISA), by detection of the pathogen by cultivation of individual faecal samples, or by. . . in vitro measurement of cell mediated immune responses using the IFN-gamma test. There is an ongoing need for developing new ***diagnostic*** approaches as all currently available ***diagnostic*** tests for paraTB may fail to detect sub-clinical infection. We used cDNA microarrays to simultaneously measure expression of over 1300. . . the microarray experiment. Our results indicate that expression profiles of at least 52 genes are different in leukocytes from M.

paratuberculosis infected cattle compared to control cattle. Gene expression differences were verified by quantitative real-time reverse transcriptase polymerase chain reactions (qRT-PCR). . . paraTB, our results demonstrate that a subset of genes in leukocytes are consistently expressed at different levels, depending upon M. ***paratuberculosis*** infection status. (c) 2006 Elsevier B.V. All rights reserved.

IT . . .

Organisms
feces: digestive system; leukocyte: immune system, blood and lymphatics

IT Diseases
Johne's disease: bacterial disease, infectious disease

IT Diseases
paratuberculosis : bacterial disease, infectious disease, etiology
Paratuberculosis (MeSH)

IT Chemicals & Biochemicals
IFN-gamma [***interferon*** -gamma]; cDNA [complementary DNA]

GEN. . . leukemia inhibitory factor mRNA gene] (Bovidae); bovine TNF-alpha-CE gene [bovine tumor necrosis factor-alpha-converting enzyme gene] (Bovidae); bovine IL-1RA gene [bovine ***interleukin*** -1 receptor antagonist mRNA gene] (Bovidae); bovine P-selectin gene [bovine P-selectin mRNA gene] (Bovidae); bovine Caspase-7 gene [bovine Mch-7 isoform alpha. . .

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AN 2004147967 EMBASE <<LOGINID::20100115>>

TI Neutralization of ***Interleukin*** -10 Significantly Enhances Gamma ***Interferon*** Expression in Peripheral Blood by Stimulation with Johnin Purified Protein Derivative and by Infection with Mycobacterium avium subsp. ***paratuberculosis*** in Experimentally Infected Cattle with ***Paratuberculosis*** .

AU Buza, Joram J.; Hikono, Hirokazu; Hirayama, Sachiyo; Bari, Abusaleh M.; Aodon-Geril; Shu, Yujing; Momotani, Eiichi (correspondence)

CS ParaTB/Inflam. Bowel. Dis. Res. Team, National Institute of Animal Health, Natl. Inst. of Agrobiol. Sciences, 3-1-5 Kan-nondai, Tsukuba 305-0856, Japan. momotani@affrc.go.jp

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CS Immune System Section, National Institute of Animal Health, Natl. Inst. of Agrobiol. Sciences, 3-1-5 Kan-nondai, Tsukuba 305-0856, Japan.

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CS ParaTB/Inflam. Bowel. Dis. Res. Team, NIAH, 3-1-5 Kan-nondai, Tsukuba 305-0856, Japan. momotani@affrc.go.jp

SO Infection and Immunity, (Apr 2004) Vol. 72, No. 4, pp. 2425-2428.
Refs: 14
ISSN: 0019-9567 CODEN: INFIBR

CY United States

DT Journal; Article

FS 026 Immunology, Serology and Transplantation
037 Drug Literature Index

LA English

SL English

ED Entered STN: 29 Apr 2004
Last Updated on STN: 29 Apr 2004

AB Monoclonal ***antibody*** neutralization of ***interleukin*** -10 (IL-10) increased Johnin purified protein derivative-induced whole-blood gamma ***interferon*** (IFN-.gamma.) secretion 23-fold and also increased IFN-.gamma. secretion ninefold following in vitro Mycobacterium avium subsp. ***paratuberculosis*** infection of peripheral blood mononuclear cells. These results demonstrate the suppressive effect of IL-10 on immune responses to M. avium subsp. ***paratuberculosis*** infection in cattle.

TI Neutralization of ***Interleukin*** -10 Significantly Enhances Gamma ***Interferon*** Expression in Peripheral Blood by Stimulation with Johnin Purified Protein Derivative and by Infection with Mycobacterium avium subsp. ***paratuberculosis*** in Experimentally Infected Cattle with ***Paratuberculosis*** .

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CT Medical Descriptors:
animal cell
animal experiment
animal model
animal tissue
antibody production
article
cattle
controlled study
*cytokine production
enzyme linked immunosorbent assay
immune response
in vitro study
mononuclear cell
*Mycobacterium avium
****Mycobacterium avium paratuberculosis***
nonhuman
*nucleotide sequence
****paratuberculosis: DI, diagnosis***
priority journal
*protein purification
****gamma interferon: EC, endogenous compound***
****interleukin 10: PD, pharmacology***
*tuberculin: EC, endogenous compound

RN (gamma ***interferon***) 82115-62-6; (tuberculin) 92129-86-7

L10 ANSWER 9 OF 11 BIOSIS COPYRIGHT (c) 2010 The Thomson Corporation on STN
DUPLICATE 2

AN 2004:178760 BIOSIS <<LOGINID::20100115>>

DN PREV200400179647

TI Cytokine gene expression in peripheral blood mononuclear cells and tissues of cattle infected with Mycobacterium avium subsp. ***paratuberculosis*** : Evidence for an inherent proinflammatory gene expression pattern.

AU Coussens, Paul M. [Reprint Author]; Verman, Nitin; Coussens, Marc A.; Elftman, Michael D.; McNulty, Amanda M.

CS Department of Animal Science, Michigan State University, 1205H Anthony Hall, East Lansing, MI, 48824, USA

coussens@msu.edu

SO Infection and Immunity, (March 2004) Vol. 72, No. 3, pp. 1409-1422. print.
ISSN: 0019-9567 (ISSN print).
DT Article
LA English
ED Entered STN: 31 Mar 2004
Last Updated on STN: 31 Mar 2004

AB In cattle and other ruminants, infection with the intracellular pathogen Mycobacterium avium subsp. ***paratuberculosis*** results in a granulomatous enteritis (Johne's disease) that is often fatal. The key features of host immunity to M. avium subsp. ***paratuberculosis*** infection include an appropriate early proinflammatory and cytotoxic response (Th1-like) that eventually gives way to a predominant ***antibody*** -based response (Th2-like). Clinical disease symptoms often appear subsequent to waning of the Th1-like immune response. Understanding why this shift in the immune response occurs and the underlying molecular mechanisms involved is critical to future control measures and ***diagnosis*** . Previous studies have suggested that M. avium subsp. ***paratuberculosis*** may suppress gene expression in peripheral blood mononuclear cells (PBMCs) from infected cows, despite a continued inflammatory reaction at sites of infection. In the present study, we tested the hypothesis that exposure to M. avium subsp. ***paratuberculosis*** suppresses a proinflammatory gene expression pattern in PBMCs from infected cows. To do this, we examined expression of genes encoding ***interleukin*** -1alpha (IL-1alpha), IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12p35, IL-16, and IL-18, as well as genes encoding gamma ***interferon*** (IFN-gamma), transforming growth factor beta (TGF-beta), and tumor necrosis factor alpha (TNF-alpha), in PBMCs, intestinal lesions, and mesenteric lymph nodes of cattle naturally infected with M. avium subsp. ***paratuberculosis*** . Cytokine gene expression in these cells and tissues was compared to expression in similar cells and tissues from control uninfected cattle. Our comprehensive results demonstrate that for most cytokine genes, including the genes encoding IFN-gamma, TGF-beta, TNF-alpha, IL-1alpha, IL-4, IL-6, IL-8, and IL-12p35, differential expression in PBMCs from infected and control cattle did not require stimulation with M. avium subsp. ***paratuberculosis*** . In fact, stimulation with M. avium subsp. ***paratuberculosis*** tended to reduce the differential expression observed in infected and uninfected cows for genes encoding IFN-gamma, IL-1alpha, and IL-6. Only IL-10 gene expression was consistently enhanced by M. avium subsp. ***paratuberculosis*** stimulation of PBMCs from subclinically infected cattle. In ileal tissues from M. avium subsp. ***paratuberculosis*** -infected cattle, expression of the genes encoding IFN-gamma, TGF-beta, IL-5, and IL-8 was greater than the expression in comparable tissues from control uninfected cattle, while expression of the gene encoding IL-16 was lower in tissues from infected cattle than in control tissues. Mesenteric lymph nodes draining sites of M. avium subsp. ***paratuberculosis*** infection expressed higher levels of IL-1alpha, IL-8, IL-2, and IL-10 mRNA than similar tissues from control uninfected cattle expressed. In contrast, the genes encoding TGF-beta and IL-16 were expressed at lower levels in lymph nodes from infected cattle than in tissues from uninfected cattle. Taken together, our results suggest that cells or other mechanisms capable of limiting proinflammatory responses to M. avium subsp. ***paratuberculosis*** develop in infected cattle and that a likely place for development and expansion of these cell populations is the mesenteric lymph nodes draining sites of infection.

TI Cytokine gene expression in peripheral blood mononuclear cells and tissues of cattle infected with Mycobacterium avium subsp. ***paratuberculosis*** : Evidence for an inherent proinflammatory gene expression pattern.

AB In cattle and other ruminants, infection with the intracellular pathogen Mycobacterium avium subsp. ***paratuberculosis*** results in a granulomatous enteritis (Johne's disease) that is often fatal. The key features of host immunity to M. avium subsp. ***paratuberculosis*** infection include an appropriate early proinflammatory and cytotoxic response (Th1-like) that eventually gives way to a predominant ***antibody*** -based response (Th2-like). Clinical disease symptoms often appear subsequent to waning of the Th1-like immune response. Understanding why this shift in the immune response occurs and the underlying molecular mechanisms involved is critical to future control measures and ***diagnosis*** . Previous studies have suggested that M. avium subsp. ***paratuberculosis*** may suppress gene expression in peripheral blood mononuclear cells (PBMCs) from infected cows, despite a continued inflammatory reaction at sites of infection. In the present study, we tested the hypothesis that exposure to M. avium subsp. ***paratuberculosis*** suppresses a proinflammatory gene expression pattern in PBMCs from infected cows. To do this, we examined expression of genes encoding ***interleukin*** -1alpha (IL-1alpha), IL-2, IL-4, IL-5, IL-6, IL-8, IL-10, IL-12p35, IL-16, and IL-18, as well as genes encoding gamma ***interferon*** (IFN-gamma), transforming growth factor beta (TGF-beta), and tumor necrosis factor alpha (TNF-alpha), in PBMCs, intestinal lesions, and mesenteric lymph nodes of cattle naturally infected with M. avium subsp. ***paratuberculosis*** . Cytokine gene expression in these cells and tissues was compared to expression in similar cells and tissues from control uninfected. . . IL-8, and IL-12p35, differential expression in PBMCs from infected and control cattle did not require stimulation with M. avium subsp. ***paratuberculosis*** . In fact, stimulation with M. avium subsp. ***paratuberculosis*** tended to reduce the differential expression observed in infected and uninfected cows for genes encoding IFN-gamma, IL-1alpha, and IL-6. Only IL-10 gene expression was consistently enhanced by M. avium subsp. ***paratuberculosis*** stimulation of PBMCs from subclinically infected cattle. In ileal tissues from M. avium subsp. ***paratuberculosis*** -infected cattle, expression of the genes encoding IFN-gamma, TGF-beta, IL-5, and IL-8 was greater than the expression in comparable tissues from. . . was lower in tissues from infected cattle than in control tissues. Mesenteric lymph nodes draining sites of M. avium subsp. ***paratuberculosis*** infection expressed higher levels of IL-1alpha, IL-8, IL-2, and IL-10 mRNA than similar tissues from control uninfected cattle expressed. In. . . cattle. Taken together, our results suggest that cells or other mechanisms capable of limiting proinflammatory responses to M. avium subsp. ***paratuberculosis*** develop in infected cattle and that a likely place for development and expansion of these cell populations is the mesenteric. . .

IT . . .
lymph node: blood and lymphatics, digestive system, immune system;
peripheral blood mononuclear cell: blood and lymphatics, immune system
IT Diseases
paratuberculosis : bacterial disease, infectious disease, genetics, immunology, Johne's disease
Paratuberculosis (MeSH)
IT Chemicals & Biochemicals

proinflammatory genes: expression pattern
ORGN . . .
Vertebrates
ORGN Classifier
Mycobacteriaceae 08881
Super Taxa
Mycobacteria; Actinomycetes and Related Organisms; Eubacteria; Bacteria; Microorganisms
Organism Name
Mycobacterium avium ssp. ***paratuberculosis*** (subspecies): pathogen
Taxa Notes
Bacteria, Eubacteria, Microorganisms
GEN cattle IFN-gamma gene [cattle ***interferon*** -gamma gene] (Bovidae); cattle IL-1-alpha gene [cattle ***interleukin*** -1-alpha gene] (Bovidae); cattle IL-10 gene [cattle ***interleukin*** -10 gene] (Bovidae); cattle IL-12p35 gene [cattle ***interleukin*** -12p35 gene] (Bovidae); cattle IL-16 gene [cattle ***interleukin*** -16 gene] (Bovidae); cattle IL-18 gene [cattle ***interleukin*** -18 gene] (Bovidae); cattle IL-2 gene [cattle ***interleukin*** -2 gene] (Bovidae); cattle IL-4 gene [cattle ***interleukin*** -4 gene] (Bovidae); cattle IL-5 gene [cattle ***interleukin*** -5 gene] (Bovidae); cattle IL-6 gene [cattle ***interleukin*** -6 gene] (Bovidae); cattle IL-8 gene [cattle ***interleukin*** -8 gene] (Bovidae); cattle TGF-beta gene [cattle transforming growth factor-beta gene] (Bovidae); cattle TNF-alpha gene [cattle tumor necrosis factor-alpha gene] (Bovidae)

L10 ANSWER 10 OF 11 CAPLUS COPYRIGHT 2010 ACS on STN
AN 2004:885718 CAPLUS <<LOGINID::20100115>>
DN 141:363746
TI Development of early-stage ***diagnostic*** method for Johne disease by using anti-IL-10 ***antibody***
AU Momotani, Eiichi; Mori, Yasuyuki
CS Natl. Agric. Bio-oriented Res. Org., Natl. Inst. Animal Health, Tsukuba, 305-0856, Japan
SO BRAIN Techno News (2004), 105, 18-24
CODEN: BTEEEC; ISSN: 1345-5958
PB Nogyo, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Kiko, Seibutsukei Tokutei Sangyo Gijutsu Kenkyu Shien Senta
DT Journal; General Review
LA Japanese
AB A review on early-stage ***diagnosis*** of Johne's disease (***paratuberculosis***) in cattle by modified ***interferon*** .gamma. ELISA assay using IL-10 neutralizing ***antibody*** , and its effectiveness.
TI Development of early-stage ***diagnostic*** method for Johne disease by using anti-IL-10 ***antibody***
AB A review on early-stage ***diagnosis*** of Johne's disease (***paratuberculosis***) in cattle by modified ***interferon*** .gamma. ELISA assay using IL-10 neutralizing ***antibody*** , and its effectiveness.
ST review cattle Johne disease ***diagnosis*** ELISA ***interleukin*** 10 ***antibody*** ; ***paratuberculosis*** cattle ***diagnosis*** ***interferon*** gamma ELISA review
IT Bos taurus
Mycobacterium avium ***paratuberculosis***
(early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT ***Interleukin*** 10
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT Immunoassay
(enzyme-liked immunosorbent assay; early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT ***Diagnosis***
(immunodiagnosis; early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT Infection
(***paratuberculosis*** , Johne's disease; early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT Antibodies and Immunoglobulins
RL: ARU (Analytical role, unclassified); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(to IL-10; early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)
IT Interferons
RL: ANT (Analyte); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)
(.gamma.; early-stage ***diagnosis*** method for Johne's disease using anti-IL-10 ***antibody***)

L10 ANSWER 11 OF 11 EMBASE COPYRIGHT (c) 2010 Elsevier B.V. All rights reserved on STN
AN 2001252042 EMBASE <<LOGINID::20100115>>
TI Subclinical ***paratuberculosis*** in goats following experimental infection: An immunological and microbiological study.
AU Storset, A.K. (correspondence); Hasvold, H.J.; Valheim, M.; Brun-Hansen, H.; Berntsen, G.; Whist, S.K.; Djonne, B.; Press, C.M.L.; Holstad, G.; Larsen, H.J.S.
CS Department of Pharmacology, School of Veterinary Science, P.O. Box 8146, N-0033 Oslo, Norway. anne.storset@veths.no
SO Veterinary Immunology and Immunopathology, (10 Aug 2001) Vol. 80, No. 3-4, pp. 271-287.
Refs: 35
ISSN: 0165-2427 CODEN: VIIMDS
PUI S 0165-2427(01)00294-X
CY Netherlands
DT Journal; Article
FS 026 Immunology, Serology and Transplantation
004 Microbiology: Bacteriology, Mycology, Parasitology and Virology
048 Gastroenterology
005 General Pathology and Pathological Anatomy
LA English
SL English
ED Entered STN: 2 Aug 2001
Last Updated on STN: 2 Aug 2001
AB An experimental oral infection of goats with a caprine isolate of Mycobacterium a. subsp. ***paratuberculosis*** was used to investigate immunological and bacteriological events during the subclinical phase of infection. Seven goats at 5-8 weeks of age were given a bacterial

suspension in milk-replacement three times weekly for 9 weeks. Six animals were kept as controls.Cellular recall responses against M. a. ***paratuberculosis*** were analysed by means of a lymphocyte proliferation test, an IFN-.gamma. assay and an IL-2 receptor assay. All inoculated animals had detectable CMI responses from 9 weeks post-inoculation and through the 2 years of study, although the responses were highest during the first year. Antibodies against M. a. ***paratuberculosis*** could be detected from weeks 15-20 in four of the seven animals, and one additional animal became ***antibody*** positive at week 35, while two inoculated animals did not produce significant ***antibody*** titres during the experiment. At about 1-year post-inoculation, two animals became faecal shedders, while two others started to excrete bacteria into faeces about 2 years post-inoculation. The appearance of M. a. ***paratuberculosis*** in faeces was not associated with a decline in cellular responses as far as could be assessed using the current methods for measuring CMI.Pathological lesions due to M. a. ***paratuberculosis*** infection and presence of bacteria were recorded in the intestine and/or mesenteric lymph nodes of five animals while lymph node changes suggestive of ***paratuberculosis*** were observed in one animal. Only the two animals with no signs of an active infection at necropsy showed a considerable decline in the cellular parameters during the last year of the study, particularly in the IFN-.gamma. assay.The two animals with the highest levels of M. a. ***paratuberculosis*** responsive CD8+ lymphocytes in the circulation about 1-year post-inoculation had no detectable lesions in the distal ileum and colon at necropsy, while high numbers of .gamma..delta. T-cells responsive to M. a. ***paratuberculosis*** in the circulation were associated with disseminated lesions in the distal ileum and colon. Copyright .COPYRGT. 2001 Elsevier Science B.V.

TI Subclinical ***paratuberculosis*** in goats following experimental infection: An immunological and microbiological study.

AB An experimental oral infection of goats with a caprine isolate of Mycobacterium a. subsp. ***paratuberculosis*** was used to investigate immunological and bacteriological events during the subclinical phase of infection. Seven goats at 5-8 weeks of. . . suspension in milk-replacement three times weekly for 9 weeks. Six animals were kept as controls.Cellular recall responses against M. a. ***paratuberculosis*** were analysed by means of a lymphocyte proliferation test, an IFN-.gamma. assay and an IL-2 receptor assay. All inoculated animals. . . and through the 2 years of study, although the responses were highest during the first year. Antibodies against M. a. ***paratuberculosis*** could be detected from weeks 15-20 in four of the seven animals, and one additional animal became ***antibody*** positive at week 35, while two inoculated animals did not produce significant ***antibody*** titres during the experiment. At about 1-year post-inoculation, two animals became faecal shedders, while two others started to excrete bacteria into faeces about 2 years post-inoculation. The appearance of M. a. ***paratuberculosis*** in faeces was not associated with a decline in cellular responses as far as could be assessed using the current methods for measuring CMI.Pathological lesions due to M. a. ***paratuberculosis*** infection and presence of bacteria were recorded in the intestine and/or mesenteric lymph nodes of five animals while lymph node changes suggestive of ***paratuberculosis*** were observed in one animal. Only the two animals with no signs of an active infection at necropsy showed a. . . the last year of the study, particularly in the IFN-.gamma. assay.The two animals with the highest levels of M. a. ***paratuberculosis*** responsive CD8+ lymphocytes in the circulation about 1-year post-inoculation had no detectable lesions in the distal ileum and colon at necropsy, while high numbers of .gamma..delta. T-cells responsive to M. a. ***paratuberculosis*** in the circulation were associated with disseminated lesions in the distal ileum and colon. Copyright .COPYRGT. 2001 Elsevier Science B.V.

CT Medical Descriptors:
animal model
animal tissue
article
bacterium identification
cellular immunity
controlled study
feces microflora
goat
histology
immunoassay
immunophenotyping
interferon production
lymph node
lymphocyte proliferation
male
mesentery lymph node
Mycobacterium paratuberculosis
nonhuman
****paratuberculosis: DI, diagnosis***
****paratuberculosis: ET, etiology***
pathogenesis
****gamma interferon: EC, endogenous compound***
****interleukin 2 receptor: EC, endogenous compound***

RN (gamma ***interferon***) 82115-62-6